

**REPORT No. 8**  
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*For information/comments:*

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*web site for historical reports: <http://clockdev.usno.navy.mil/TTR>*

This monthly report contains a comparison of Two-way Satellite Time Transfer (TW), Common-view Time Transfer (CV), and Carrier-Phase Time/Frequency Transfer (CP) data analyzed at USNO. Time transfer data is tabulated and analyzed in a one-point-per-day format for the list of timing labs given below. Because we currently process TW data only for those baselines which include USNO, not every baseline combination of these labs is included in this report.

*AMC Colorado Springs, Colorado U.S.A*

*NPL Teddington, Middlesex, UK*

*PTB Braunschweig, Germany*

*USNO Washington, D.C. USA*

## **HOW THE TABLES ARE CALCULATED**

For each baseline, time-transfer data are collected from each of the TW, CV, and CP analysis groups at USNO. To each data time series, a one-day linear fit is made. From this fit, a value for time-transfer is selected which corresponds to an epoch at which a TW data point exists. For those days without TW data, the CP and CV time-transfer value is related to 12:00 UTC. Also, the RMS scatter about each linear fit is given in the table.

Following each table are graphs of TW-CV, TW-CP, and CV-CP differences. Error bars are drawn on each data point reflecting an RSS combination of the RMS values obtained from the linear fits to each TW, CV, and CP time series. Though the tables in each report will consist of one month of data, the graphs will be cumulative until one year of data is collected, after which the graphs will consist of a one-year moving window.

Basic hardware configurations at each site are provided at the end of the report. Because some sites may have more than one receiver/modem, a separate designation has been specified for each receiver combination. For example, the report includes 8 designations for USNO (e.g. USNO(a), USNO(b), ..., USNO(h)) where each designation corresponds to a different combination of CV, CP, and TW receivers/modems. Since each designation represents a combination of TW, CV, and CP receivers/modems, these hardware configuration tables will be somewhat redundant. For example, USNO(a) and USNO(b) differ only in the choice of CV receiver (i.e. the TW and CP hardware are the same for USNO(a) and USNO(b)).

NOTE: Currently, the following site combinations are such that CP receivers are NOT on the same reference standard as the CV and TW hardware: USNO(a), USNO(b), PTB, TUG. However, the USNO(a) and USNO(b) clock estimates are re-referenced to the same timing reference as the CV and TW hardware using an optic fiber link. Also, CP clock estimates at PTB are referenced to the same timing reference as CV and TW data using data from a SRS620 time-interval counter.

## **ADJUSTMENTS TO THE DATA**

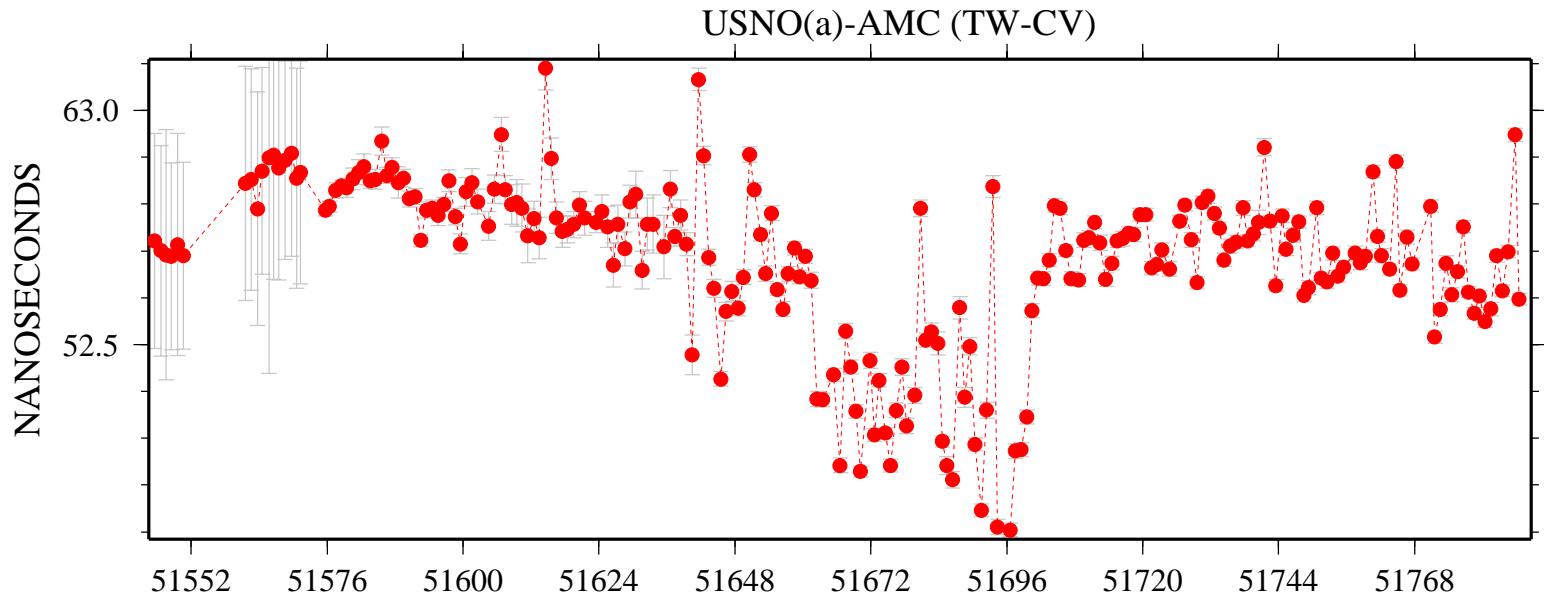
Each table contains a column marked ADJUSTMENTS which indicate any manual adjustments made to the data. For example, we currently remove arbitrary values from the non-calibrated carrier-phase systems to account for receiver resets which can occur for example when a receiver's power is cycled. In particular, first differences of the carrier-phase estimates are taken and spikes larger than 10ns (accounting for large data gaps) are flagged as outliers. Flagged values are then replaced by linearly interpolating adjacent first differences. Finally, the series of first differences is then integrated back into the time domain by choosing an initial arbitrary constant so that all CP values are 0.000 on January 1, 2000. For these carrier-phase adjustments, the ADJUSTMENTS column represents the difference between the raw and the "cleaned" CP data, and is therefore a measure of the individual jumps removed. This is clearly not the optimal method of removing such jumps since some carrier-phase systems track a 1-pps input from the local reference which can be used to re-reference the receiver's internal clock to the external reference when such resets occur. However, since we do not have available such 1-pps for most of the non-USNO sites, we have opted instead to remain consistent and remove carrier-phase jumps according to this very simplistic method.

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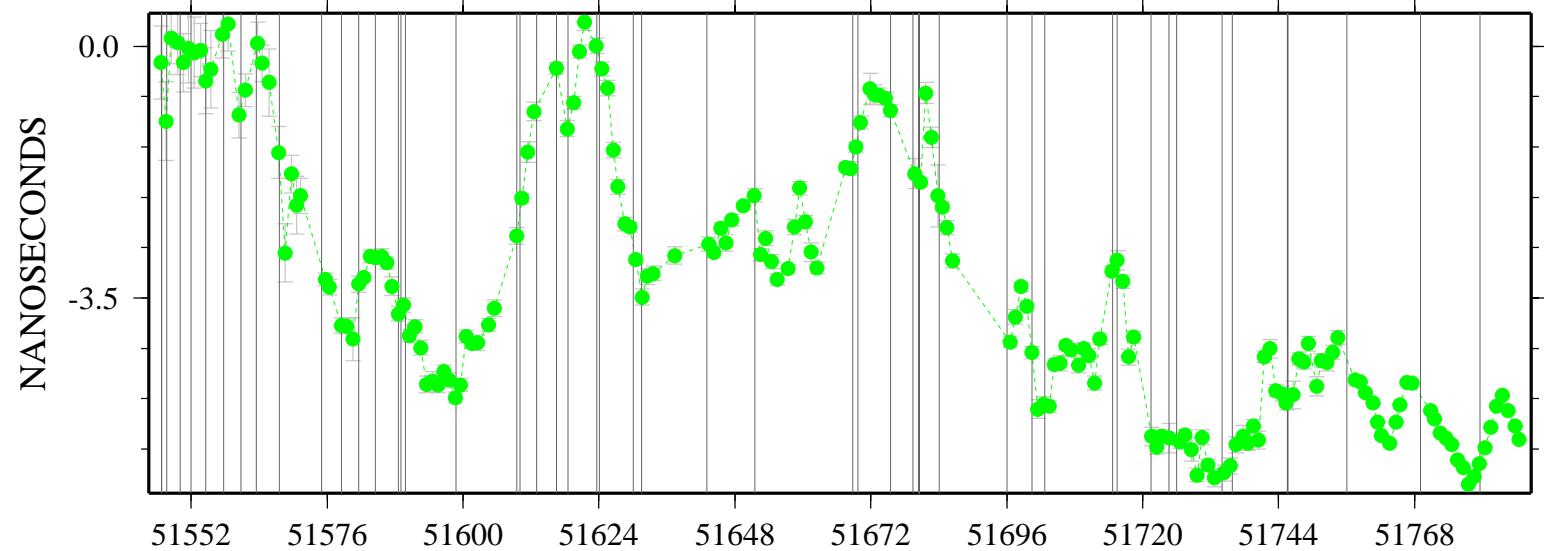
# USNO(a) - AMC

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)		
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP
51757.5761	0.0	-56.6	4.638		56.6	-4.6	-61.2	0.0	0.3	0.004
51758.4101	0.0	-56.2	4.671		56.2	-4.7	-60.8	0.0	0.3	0.003
51759.3473	0.0	-56.5	4.817		56.5	-4.8	-61.3	0.0	0.3	0.002
51760.7018	0.0	-60.3	4.962		60.3	-5.0	-65.2	0.0	0.3	0.004
51761.5139	0.0	-57.4	5.226		57.4	-5.2	-62.6	0.0	0.3	0.011
51762.2011	0.0	-56.5	5.416		56.5	-5.4	-61.9	0.0	0.3	0.003
51763.5760	0.0	-55.9	5.518		55.9	-5.5	-61.4	0.0	0.2	0.004
51764.8056	0.0	-60.7	5.224		60.7	-5.2	-65.9	0.0	0.3	0.006
51765.4094	0.0	-54.9	4.988		54.9	-5.0	-59.9	0.0	0.3	0.004
51766.6806	0.0	-57.3	4.675		57.3	-4.7	-62.0	0.0	0.3	0.004
51767.5344	0.0	-56.1	4.683		56.1	-4.7	-60.8	0.0	0.3	0.002
51768.0559	0.0	-53.8	4.681		53.8	-4.7	-58.5	Inf	0.3	0.002
51769.5000		-57.6	4.642	+ 733.325cp			-62.3		0.3	0.004
51770.9101	0.0	-58.7	5.070		58.7	-5.1	-63.8	0.0	0.3	0.003
51771.5768	0.0	-52.8	5.180		52.8	-5.2	-58.0	0.0	0.3	0.004
51772.5154	0.0	-54.1	5.378		54.1	-5.4	-59.5	0.0	0.3	0.003
51773.6184	0.0	-56.2	5.448		56.2	-5.4	-61.6	0.0	0.3	0.003
51774.5552	0.0	-54.7	5.539		54.7	-5.5	-60.3	0.0	0.3	0.003
51775.5761	0.0	-55.8	5.752		55.8	-5.8	-61.5	0.0	0.3	0.002
51776.5774	0.0	-57.8	5.862		57.8	-5.9	-63.7	0.0	0.3	0.003
51777.5139	0.0	-54.9	6.088		54.9	-6.1	-60.9	0.0	0.3	0.003
51778.4927	0.0	-53.9	5.985		53.9	-6.0	-59.9	0.0	0.3	0.002
51779.4927	0.0	-54.7	5.811	- 1204.880cp	54.7	-5.8	-60.5	0.0	0.2	0.003
51780.4518	0.0	-53.5	5.582		53.5	-5.6	-59.1	0.0	0.3	0.004
51781.5344	0.0	-54.1	5.301		54.1	-5.3	-59.4	0.0	0.3	0.004
51782.5351	0.0	-56.5	5.002		56.5	-5.0	-61.5	0.0	0.3	0.004
51783.5143	0.0	-54.9	4.857		54.9	-4.9	-59.8	0.0	0.3	0.003
51784.5351	0.0	-56.7	5.067		56.7	-5.1	-61.7	0.0	0.3	0.003
51785.7455	0.0	-61.9	5.282		61.9	-5.3	-67.2	0.0	0.3	0.005
51786.4938	0.0	-54.5	5.471		54.5	-5.5	-60.0	0.0	0.2	0.003
<b>USNO(a):</b> TW: USNO_TW_USNO CV: USNO_CV_AOA1 CP: <a href="#">USNO_CP_USNO</a>					<b>AMC:</b> TW: AMC_TW_AMC CV: AMC_CV_AOA2 CP: <a href="#">AMC_CP_AMC2</a>					

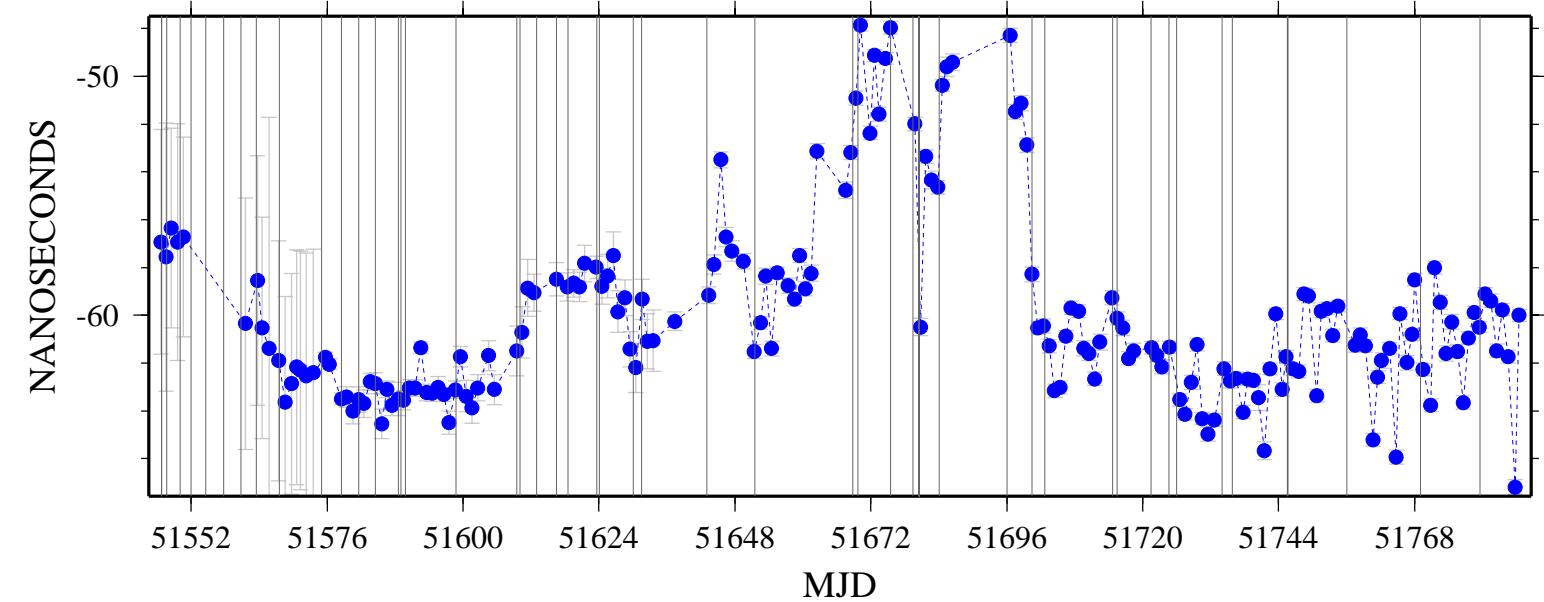
USNO(a)-AMC (TW-CV)



USNO(a)-AMC (TW-CP)



USNO(a)-AMC (CV-CP)

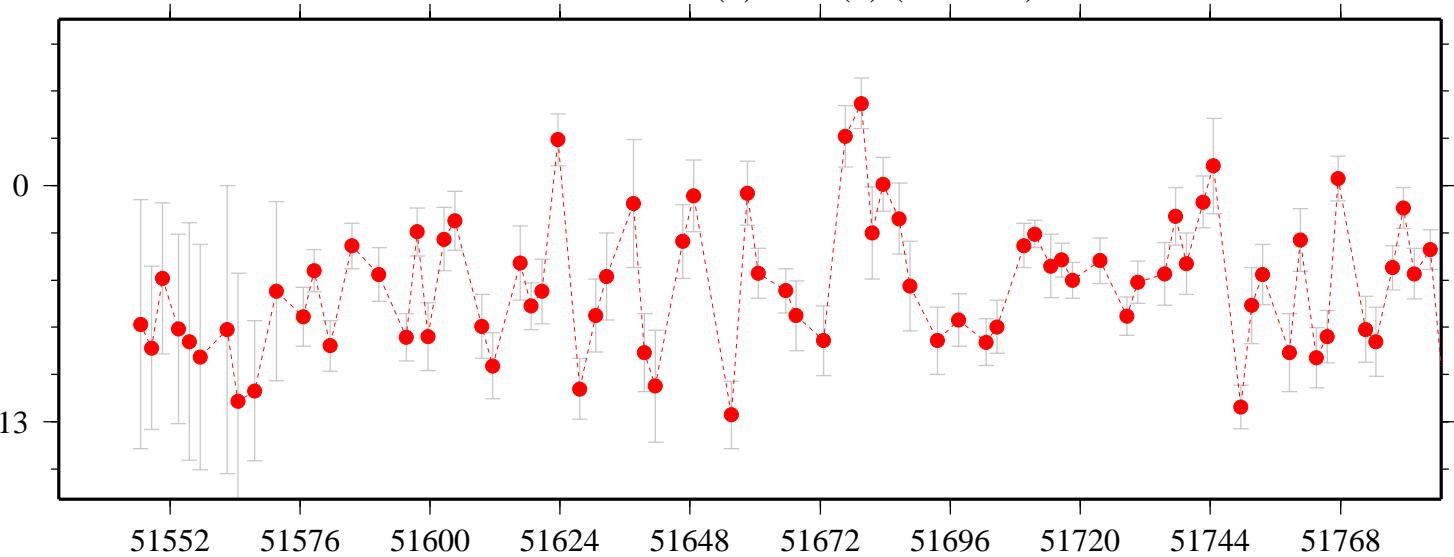


# USNO(b) - NPL(b)

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)		
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP
51757.5000		12.9	-91.457	+ 0.297cp			104.4		1.5	0.006
51758.6097	3.1	12.3	-91.193		-9.2	94.3	103.5	0.8	2.0	0.006
51759.5000		7.9	-90.938				98.9		1.0	0.006
51760.6097	3.5	6.5	-90.629		-3.0	94.1	97.1	0.4	1.7	0.005
51761.5000		7.8	-91.414				99.2		1.6	0.786
51762.5000		10.4	-90.118				100.5		1.3	0.004
51763.6097	5.1	14.5	-89.737		-9.5	94.8	104.3	0.4	1.6	0.006
51764.5000		10.7	-89.701				100.4		1.5	0.009
51765.6097	5.1	13.4	-90.264		-8.3	95.4	103.7	0.4	1.4	0.005
51766.5000		6.6	-90.637				97.2		1.0	0.006
51767.6097	4.0	3.6	-91.039		0.4	95.1	94.7	0.4	1.2	0.005
51768.5000		7.4	-91.247				98.7		1.5	0.004
51769.5000		3.4	-91.310				94.7		1.5	0.008
51770.5000		4.7	-91.387				96.1		1.6	0.005
51771.5000		9.7	-91.429	- 31.465cp			101.1		1.6	0.006
51772.6097	2.1	10.0			-7.9			0.4	1.8	
51773.5000		9.7							1.4	
51774.6097	1.2	9.8			-8.6			0.3	1.9	
51775.5000		9.7							1.7	
51776.5000		6.9							1.5	
51777.6097	-0.7	3.8			-4.5			0.4	1.2	
51778.5000		6.7							1.6	
51779.6097	-0.9	0.3			-1.2			0.4	1.1	
51780.5000		6.5							1.4	
51781.6097	-1.8	3.0			-4.8			0.4	1.3	
51782.5000		3.3							1.5	
51783.5000		6.4							1.2	
51784.6097	-1.3	2.2			-3.5			0.4	1.0	
51785.5000		8.9							1.2	
51786.6097	-3.4	6.6			-10.0			0.4	1.4	
USNO(b):					NPL(b):					
TW: USNO_TW_USNO					TW: NPL_TW_NPL					
CV: USNO_CV_TTR1-2					CV: NPL_CV_NPL					
CP: <a href="#">USNO_CP_USNO</a>					CP: NPL_CP_NPLB					

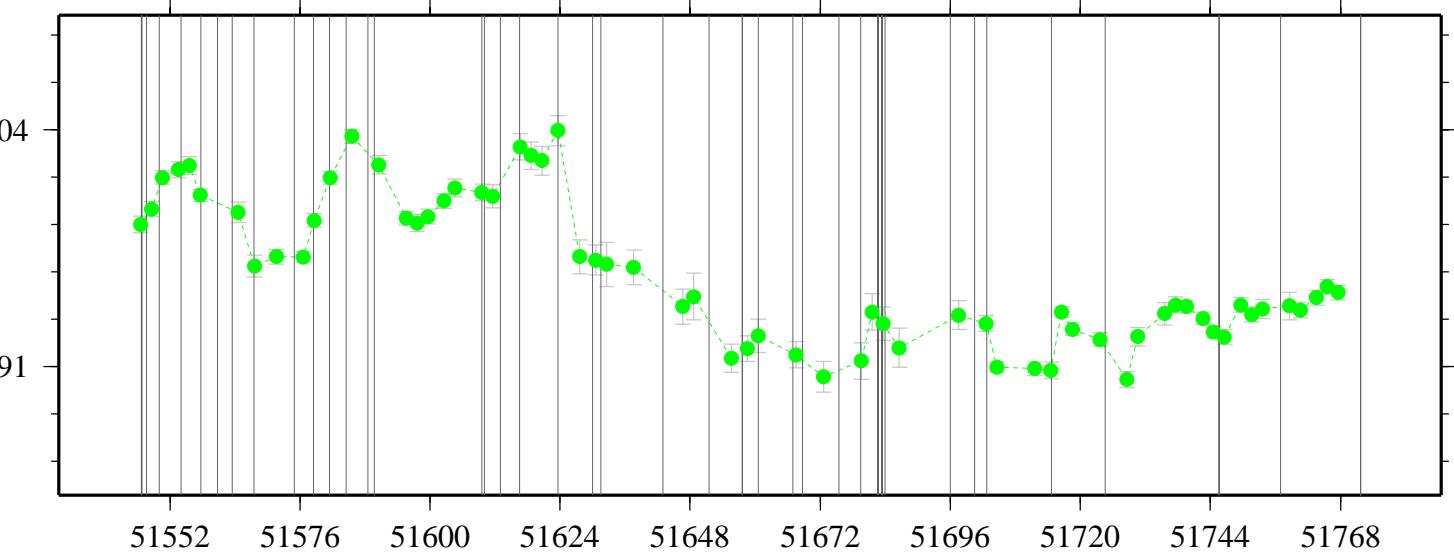
### USNO(b)-NPL(b) (TW-CV)

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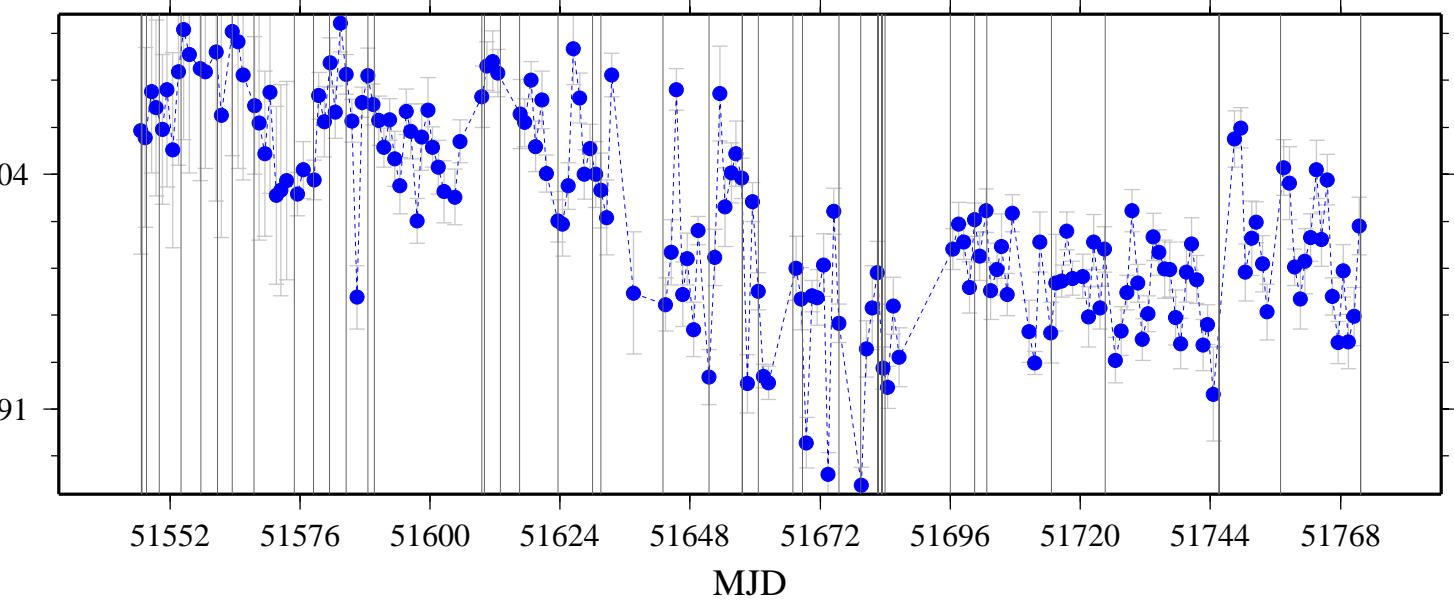
### USNO(b)-NPL(b) (TW-CP)

NANOSECONDS



### USNO(b)-NPL(b) (CV-CP)

NANOSECONDS



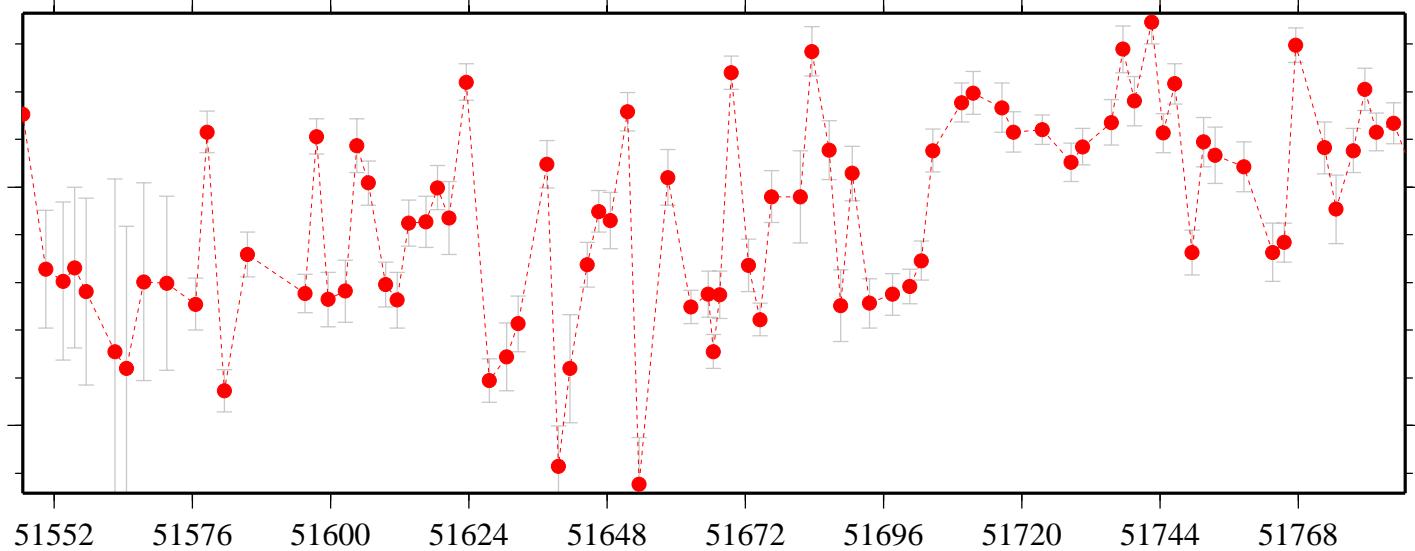
x and y-axes are same scale

# USNO(b) - PTB(a)

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)		
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP
51757.5000		-3.6	20.258				-23.9		1.0	0.022
51758.6160	-5.0	-6.2	22.270		1.1	-27.3	-28.4	0.6	1.3	0.025
51759.5000		-9.1	22.116				-31.3		0.9	0.014
51760.5000		-6.5	23.515				-30.0		1.3	0.032
51761.5000		-6.6	25.071	- 0.722CP			-31.6		1.2	0.201
51762.5000		-0.8	24.947				-25.7		1.1	0.014
51763.6160	0.1	3.8	26.255		-3.7	-26.1	-22.4	0.6	1.5	0.025
51764.5000		-0.8	26.617				-27.5		0.9	0.028
51765.6160	2.0	5.2	24.454		-3.1	-22.4	-19.3	0.6	0.9	0.020
51766.5000		-3.6	24.655				-28.2		0.9	0.017
51767.6160	0.2	-7.8	25.333		8.1	-25.1	-33.2	0.5	0.8	0.018
51768.5000		-0.4	27.539				-27.9		1.3	0.012
51769.5000		-2.3	30.197				-32.5		1.3	0.026
51770.5000		-0.6	30.971				-31.6		1.4	0.022
51771.5000		4.7	33.362				-28.7		1.0	0.042
51772.6160	10.2	8.0	33.785		2.2	-23.6	-25.8	0.6	1.3	0.024
51773.5000		9.6	33.361				-23.7		1.1	0.028
51774.6160	8.9	10.1			-1.2			0.6	1.9	
51775.5000		6.4	34.094	+ 1.609CP			-27.7		1.3	0.024
51776.5000		5.9	34.129				-28.2		1.0	0.012
51777.6160	6.7	4.6			2.1			0.6	1.1	
51778.5000		5.0	32.619				-27.6		1.0	0.025
51779.6160	6.1	0.5	32.961		5.6	-26.9	-32.4	0.5	1.1	0.023
51780.5000		5.2	30.831				-25.7		1.2	0.012
51781.6160	4.4	1.3	31.607		3.1	-27.2	-30.4	0.6	0.9	0.017
51782.5000		0.8	31.626				-30.8		1.1	0.017
51783.5000		4.2	31.270				-27.0		1.0	0.018
51784.6160	4.6	1.0	31.681		3.6	-27.1	-30.7	0.6	1.0	0.017
51785.5000		6.4	32.806				-26.4		0.9	0.015
51786.6160	6.3	4.3	34.281		1.9	-28.0	-30.0	0.5	1.0	0.011
<b>USNO(b):</b> TW: USNO_TWUSNO CV: USNO_CV_TTR1-2 CP: <a href="#">USNO_CP_USNO</a>					<b>PTB(a):</b> TW: PTB_TW_PTB CV: PTB_CV_PTB CP: PTB_CP_PTBA					

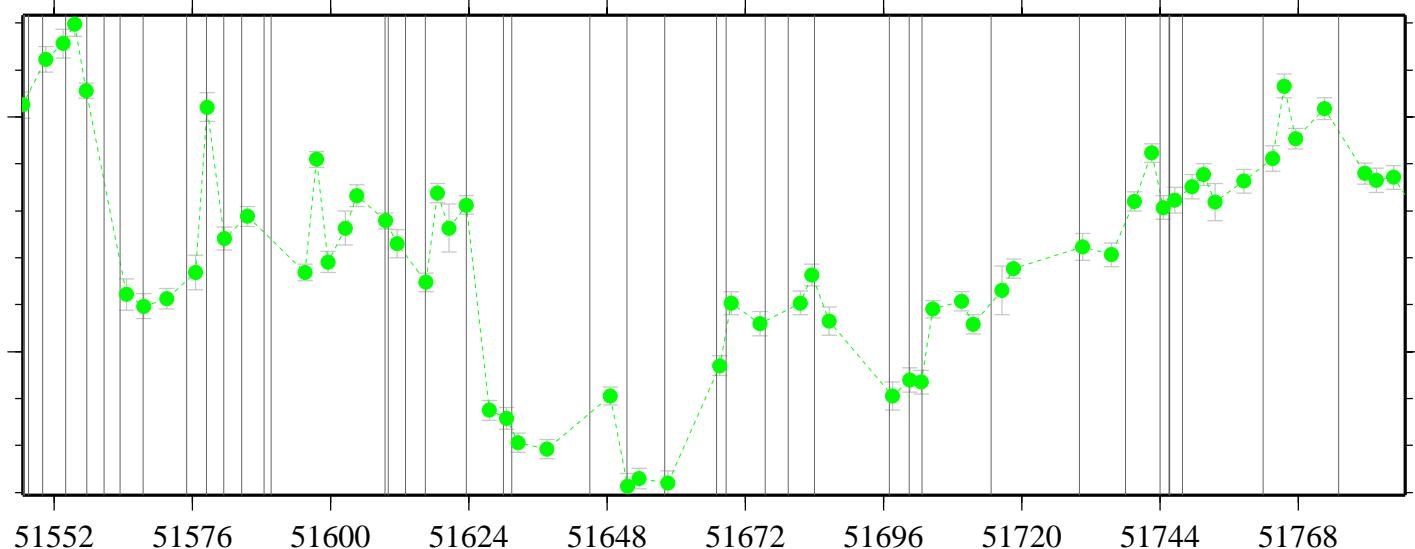
USNO(b)-PTB(a) (TW-CV)

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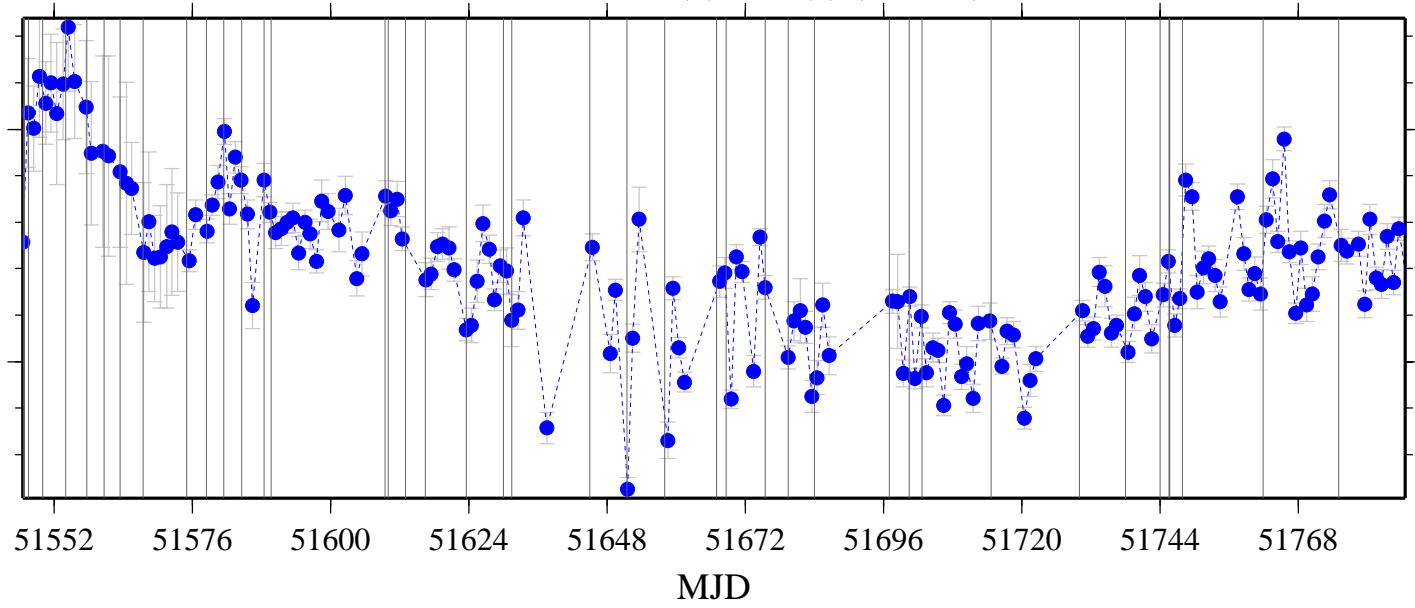
USNO(b)-PTB(a) (TW-CP)

NANOSECONDS



USNO(b)-PTB(a) (CV-CP)

NANOSECONDS

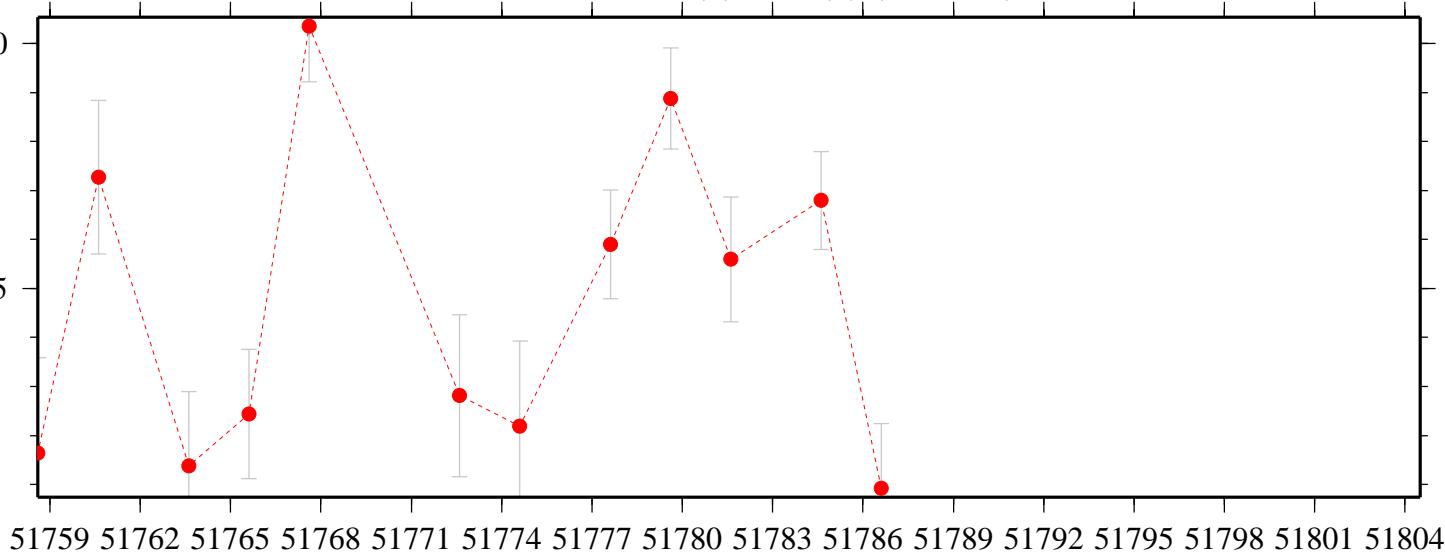


# USNO(b) - NPL(d)

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)		
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP
51757.5000		12.9							1.5	
51758.6097	3.1	12.3			-9.2			0.8	2.0	
51759.5000		7.9							1.0	
51760.6097	3.5	6.5			-3.0			0.4	1.7	
51761.5000		7.8							1.6	
51762.5000		10.4							1.3	
51763.6097	5.1	14.5			-9.5			0.4	1.6	
51764.5000		10.7							1.5	
51765.6097	5.1	13.4			-8.3			0.4	1.4	
51766.5000		6.6							1.0	
51767.6097	4.0	3.6			0.4			0.4	1.2	
51768.5000		7.4							1.5	
51769.5000		3.4							1.5	
51770.5000		4.7							1.6	
51771.5000		9.7							1.6	
51772.6097	2.1	10.0			-7.9			0.4	1.8	
51773.5000		9.7							1.4	
51774.6097	1.2	9.8			-8.6			0.3	1.9	
51775.5000		9.7							1.7	
51776.5000		6.9	0.000	- 7549.323cp			6.9		1.5	0.005
51777.6097	-0.7	3.8	0.038		-4.5	-0.8	3.8	0.4	1.2	0.005
51778.5000		6.7	-0.411				7.1		1.6	0.005
51779.6097	-0.9	0.3	-0.680		-1.2	-0.2	1.0	0.4	1.1	0.004
51780.5000		6.5	-0.875				7.3		1.4	0.005
51781.6097	-1.8	3.0	-1.081		-4.8	-0.7	4.1	0.4	1.3	0.004
51782.5000		3.3	-1.193				4.4		1.5	0.006
51783.5000		6.4	-1.561				7.9		1.2	0.005
51784.6097	-1.3	2.2	-1.773		-3.5	0.5	4.0	0.4	1.0	0.004
51785.5000		8.9	-1.929				10.8		1.2	0.006
51786.6097	-3.4	6.6	-2.094		-10.0	-1.3	8.7	0.4	1.4	0.007
<b>USNO(b):</b> TW: USNO_TW_USNO CV: USNO_CV_TTR1-2 CP: <a href="#">USNO_CP_USNO</a>					<b>NPL(d):</b> TW: NPL_TW_NPL CV: NPL_CV_NPL CP: NPL_CP_NPLD					

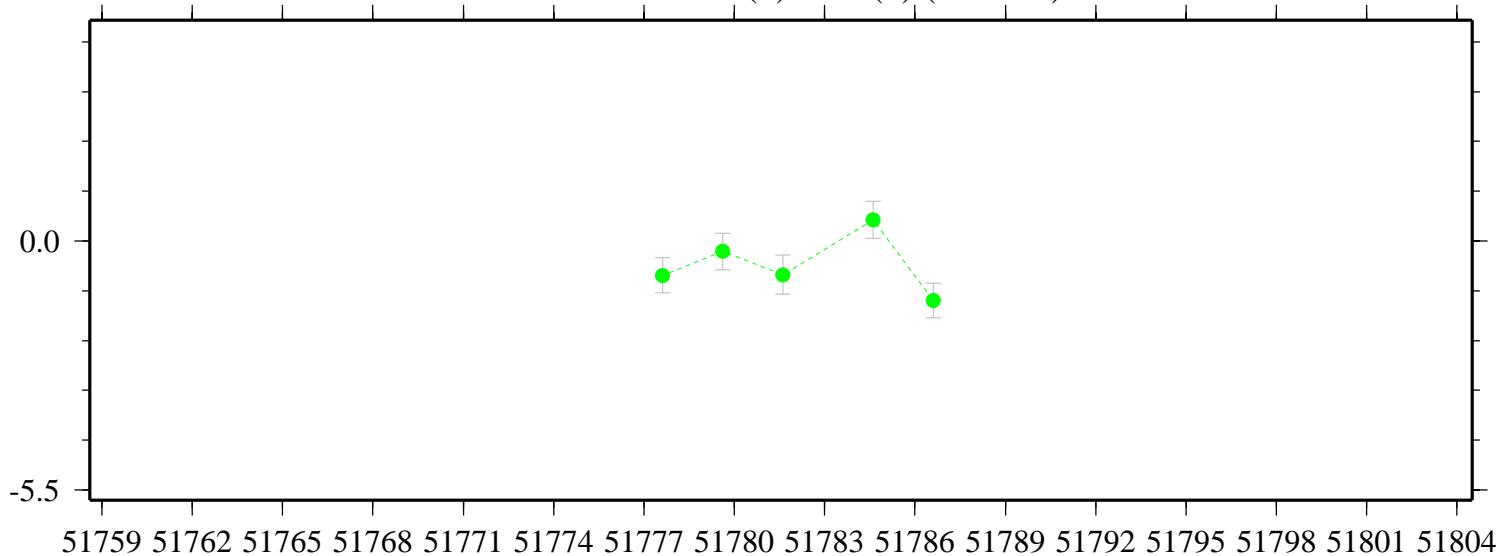
### USNO(b)-NPL(d) (TW-CV)

NANOSECONDS



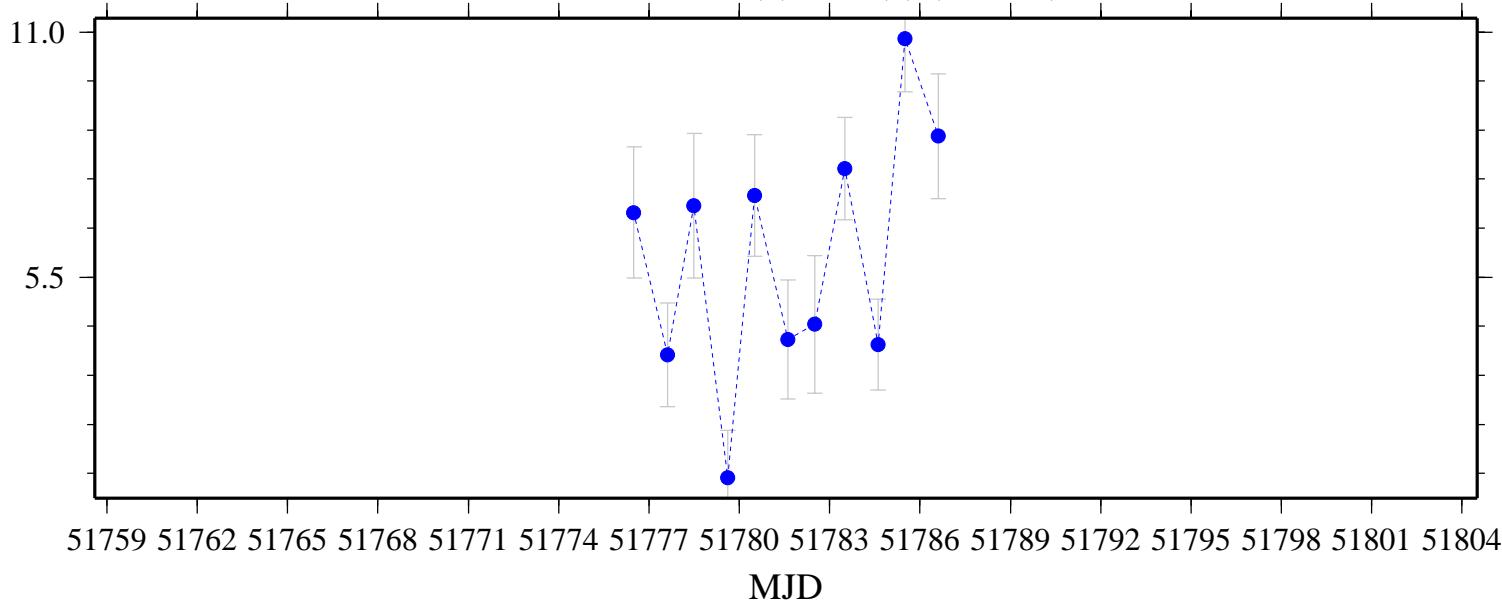
### USNO(b)-NPL(d) (TW-CP)

NANOSECONDS



### USNO(b)-NPL(d) (CV-CP)

NANOSECONDS



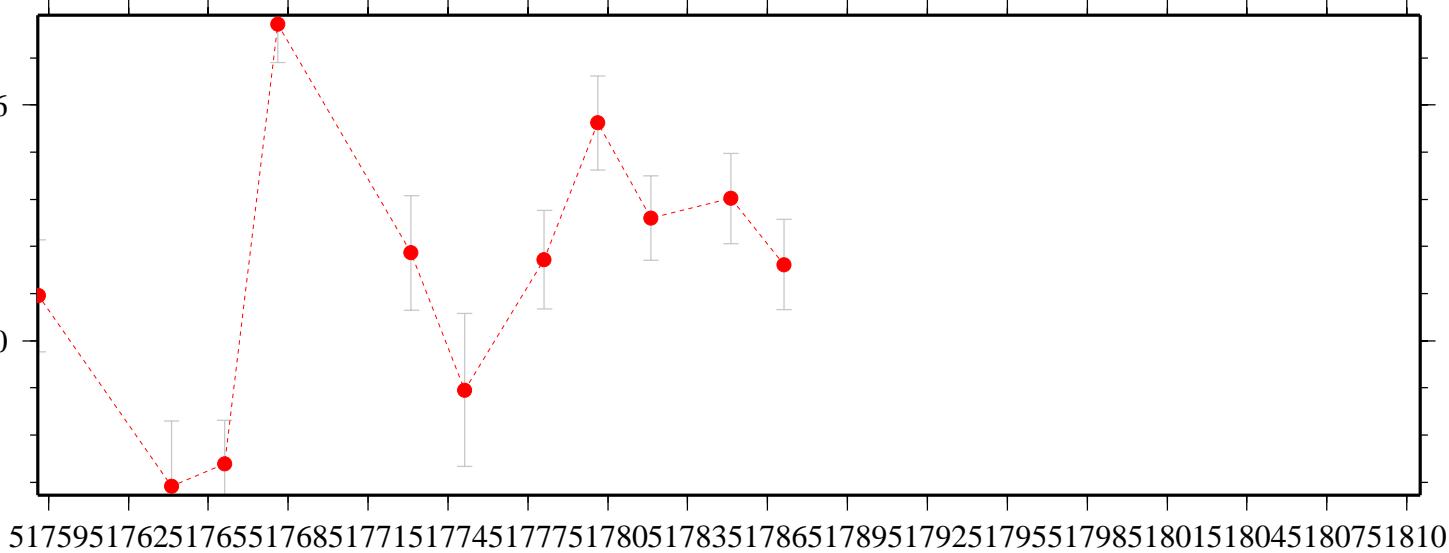
x and y-axes are same scale

# USNO(b) - PTB(b)

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)			
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP	
51757.5000		-3.6							1.0		
51758.6160	-5.0	-6.2				1.1		0.6	1.3		
51759.5000		-9.1							0.9		
51760.5000		-6.5							1.3		
51761.5000		-6.6							1.2		
51762.5000		-0.8							1.1		
51763.6160	0.1	3.8				-3.7		0.6	1.5		
51764.5000		-0.8							0.9		
51765.6160	2.0	5.2				-3.1		0.6	0.9		
51766.5000		-3.6							0.9		
51767.6160	0.2	-7.8				8.1		0.5	0.8		
51768.5000		-0.4							1.3		
51769.5000		-2.3							1.3		
51770.5000		-0.6							1.4		
51771.5000		4.7							1.0		
51772.6160	10.2	8.0				2.2		0.6	1.3		
51773.5000		9.6							1.1		
51774.6160	8.9	10.1				-1.2		0.6	1.9		
51775.5000		6.4							1.3		
51776.5000		5.9							1.0		
51777.6160	6.7	4.6				2.1		0.6	1.1		
51778.5000		5.0							1.0		
51779.6160	6.1	0.5				5.6		0.5	1.1		
51780.5000		5.2							1.2		
51781.6160	4.4	1.3				3.1		0.6	0.9		
51782.5000		0.8	0.000	+ 1064.010cp				0.8	1.1	0.016	
51783.5000		4.2	-0.647					4.9	1.0	0.019	
51784.6160	4.6	1.0	-0.640			3.6	5.2	1.6	0.6	1.0	0.018
51785.5000		6.4	0.260					6.1		0.9	0.014
51786.6160	6.3	4.3	1.530			1.9	4.7	2.8	0.5	1.0	0.010
USNO(b): TW: USNO_TWUSNO CV: USNO_CV_TTR1-2 CP: <a href="#">USNO_CP_USNO</a>					PTB(b): TW: PTB_TW_PTB CV: PTB_CV_PTB CP: PTB_CP_PTBB						

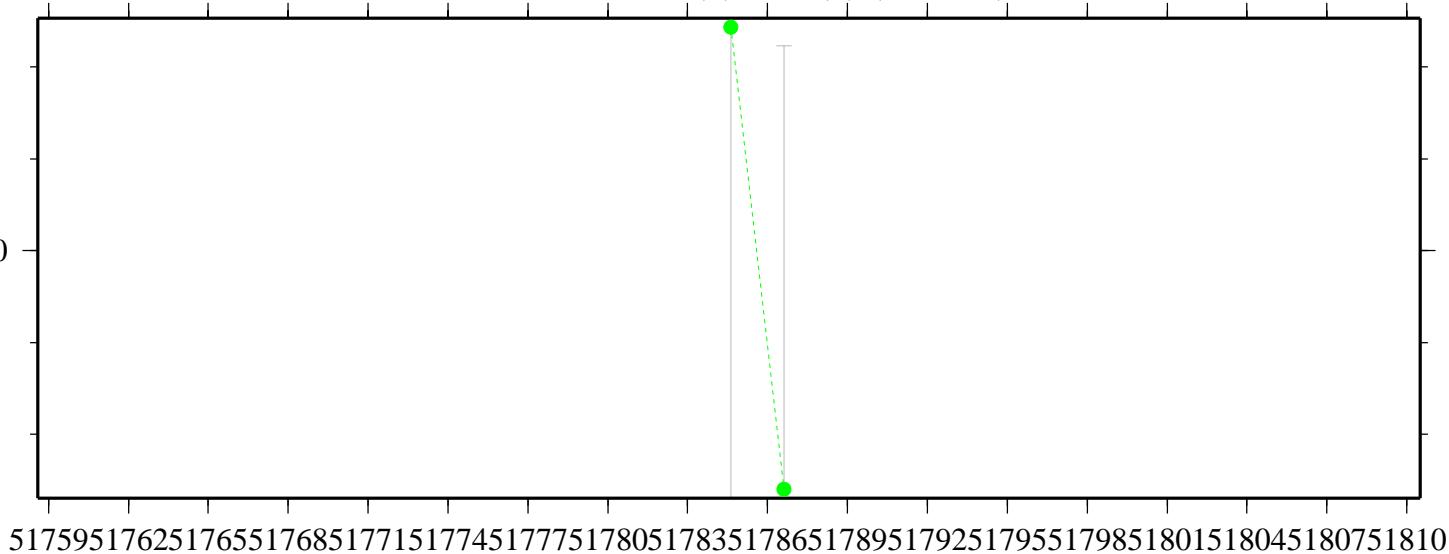
### USNO(b)-PTB(b) (TW-CV)

NANOSECONDS



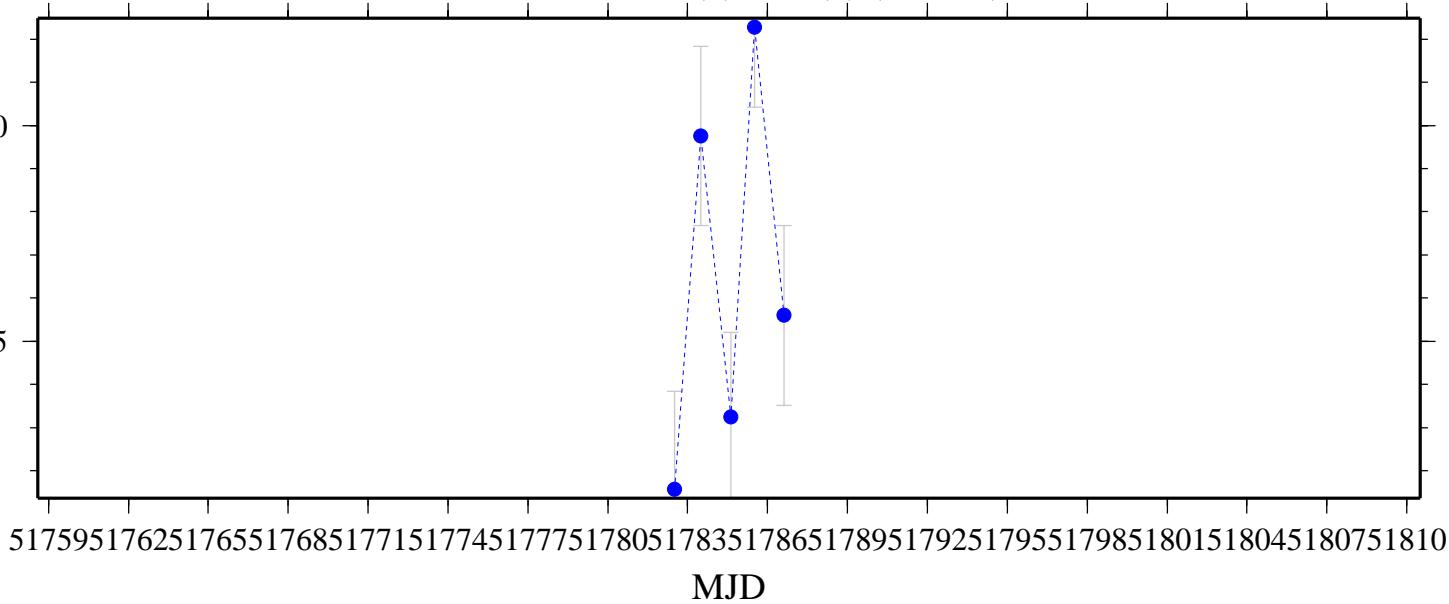
### USNO(b)-PTB(b) (TW-CP)

NANOSECONDS



### USNO(b)-PTB(b) (CV-CP)

NANOSECONDS

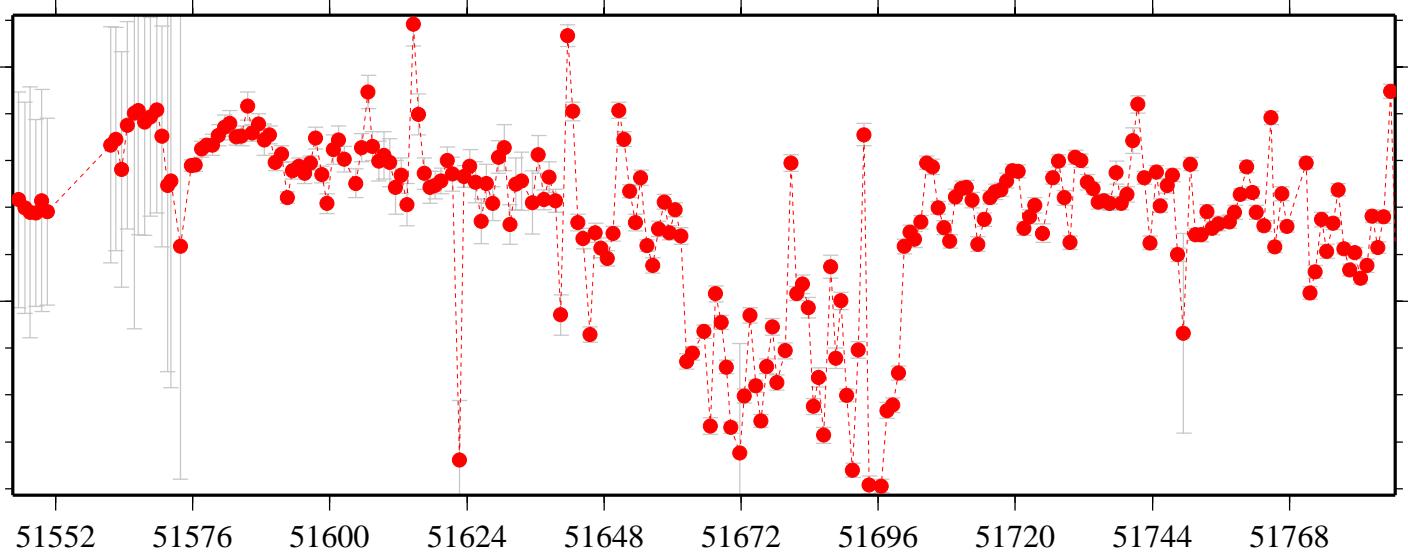


# USNO(c) - AMC

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)		
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP
51757.4306	0.0	-56.1			56.1			0.0	0.3	
51758.4309	0.0	-56.5	2.265		56.5	-2.3	-58.7	0.0	0.3	0.004
51759.4309	0.0	-57.3	2.135		57.3	-2.1	-59.4	0.0	0.3	0.003
51760.5143	0.0	-58.5	2.017		58.5	-2.0	-60.6	0.0	0.3	0.003
51761.5139	0.0	-57.4	2.067		57.4	-2.1	-59.4	0.0	0.3	0.003
51762.2011	0.0	-56.5	2.144		56.5	-2.1	-58.6	0.0	0.3	0.003
51763.5760	0.0	-55.9	2.022		55.9	-2.0	-57.9	0.0	0.2	0.003
51764.8056	0.0	-60.7	2.128		60.7	-2.1	-62.8	0.0	0.3	0.004
51765.4094	0.0	-54.9	1.587		54.9	-1.6	-56.5	0.0	0.3	0.003
51766.6806	0.0	-57.3	1.051		57.3	-1.1	-58.4	0.0	0.3	0.003
51767.5788	0.0	-55.8	0.956		55.8	-1.0	-56.8	0.0	0.3	0.003
51768.0559	0.0	-53.8	0.868		53.8	-0.9	-54.7	Inf	0.3	0.003
51769.5000		-57.6	0.518	+ 733.441cp			-58.1		0.3	0.003
51770.9101	0.0	-58.7			58.7			0.0	0.3	
51771.5566	0.0	-52.9			52.9			0.0	0.3	
51772.4934	0.0	-53.8			53.8			0.0	0.3	
51773.6184	0.0	-56.2			56.2			0.0	0.3	
51774.5552	0.0	-54.7			54.7			0.0	0.3	
51775.5980	0.0	-56.0	0.431	+ 0.742cp	56.0	-0.4	-56.4	0.0	0.3	0.006
51776.5559	0.0	-57.5			57.5			0.0	0.3	
51777.5139	0.0	-54.9			54.9			0.0	0.3	
51778.4927	0.0	-53.9	0.344		53.9	-0.3	-54.2	0.0	0.3	0.004
51779.4927	0.0	-54.7	0.122	- 1205.197cp	54.7	-0.1	-54.8	0.0	0.2	0.002
51780.4518	0.0	-53.5	-0.032		53.5	0.0	-53.5	0.0	0.3	0.003
51781.5344	0.0	-54.1	0.088		54.1	-0.1	-54.2	0.0	0.3	0.003
51782.5139	0.0	-56.3	-0.057		56.3	0.1	-56.3	0.0	0.3	0.003
51783.5143	0.0	-54.9	0.122		54.9	-0.1	-55.0	0.0	0.3	0.002
51784.4938	0.0	-56.3	0.480		56.3	-0.5	-56.8	0.0	0.3	0.003
51785.7455	0.0	-61.9	0.997		61.9	-1.0	-62.9	0.0	0.3	0.005
51786.5351	0.0	-54.7	1.198		54.7	-1.2	-55.9	0.0	0.2	0.004
<b>USNO(c):</b> TW: USNO_TW_USNO CV: USNO_CV_AOA1 CP: USNO_CP_USNB					<b>AMC:</b> TW: AMC_TW_AMC CV: AMC_CV_AOA2 CP: <a href="#">AMC_CP_AMC2</a>					

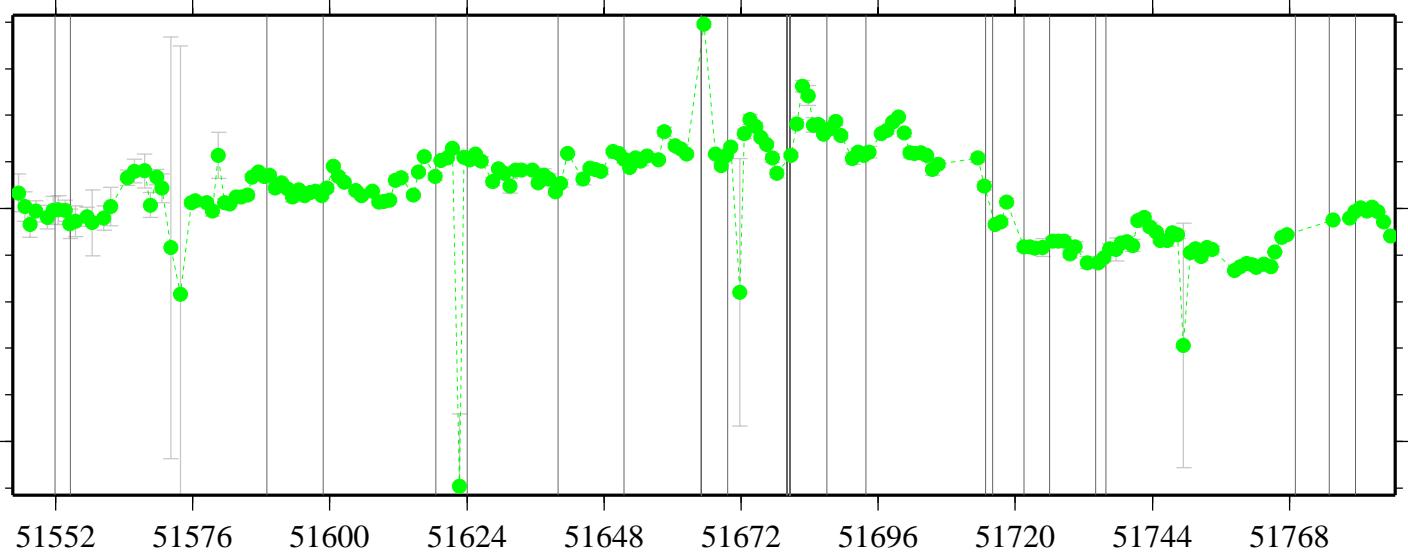
### USNO(c)-AMC (TW-CV)

NANOSECONDS



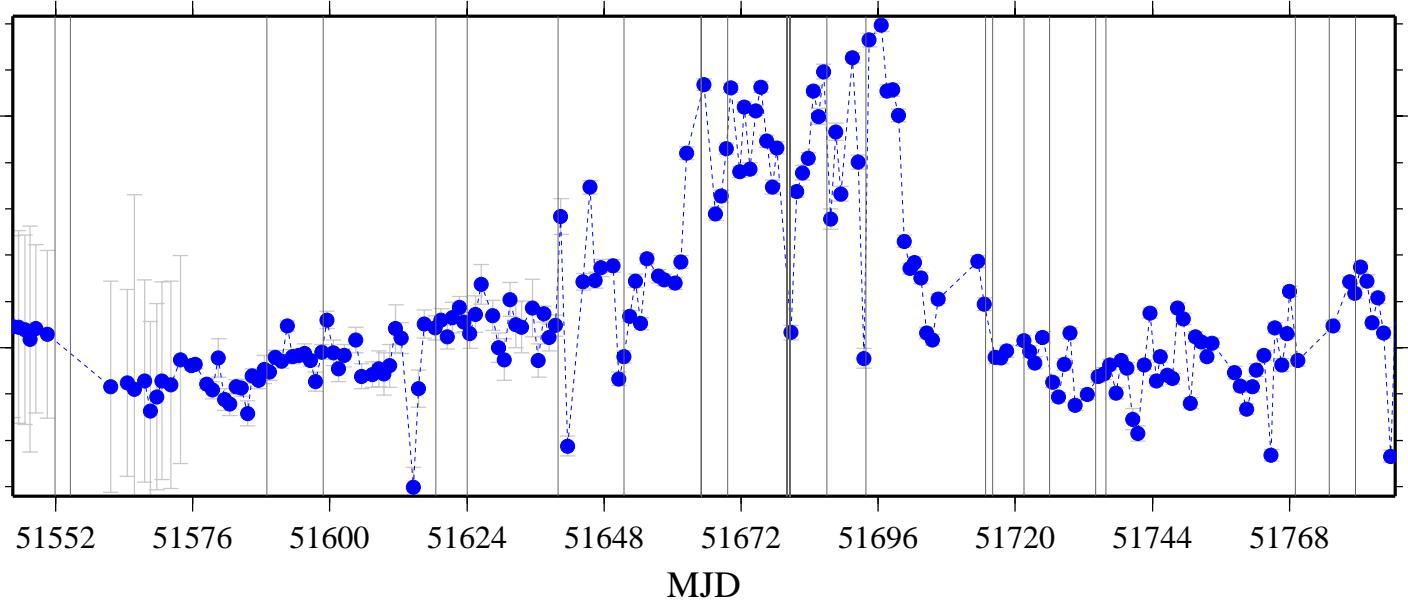
### USNO(c)-AMC (TW-CP)

NANOSECONDS



### USNO(c)-AMC (CV-CP)

NANOSECONDS

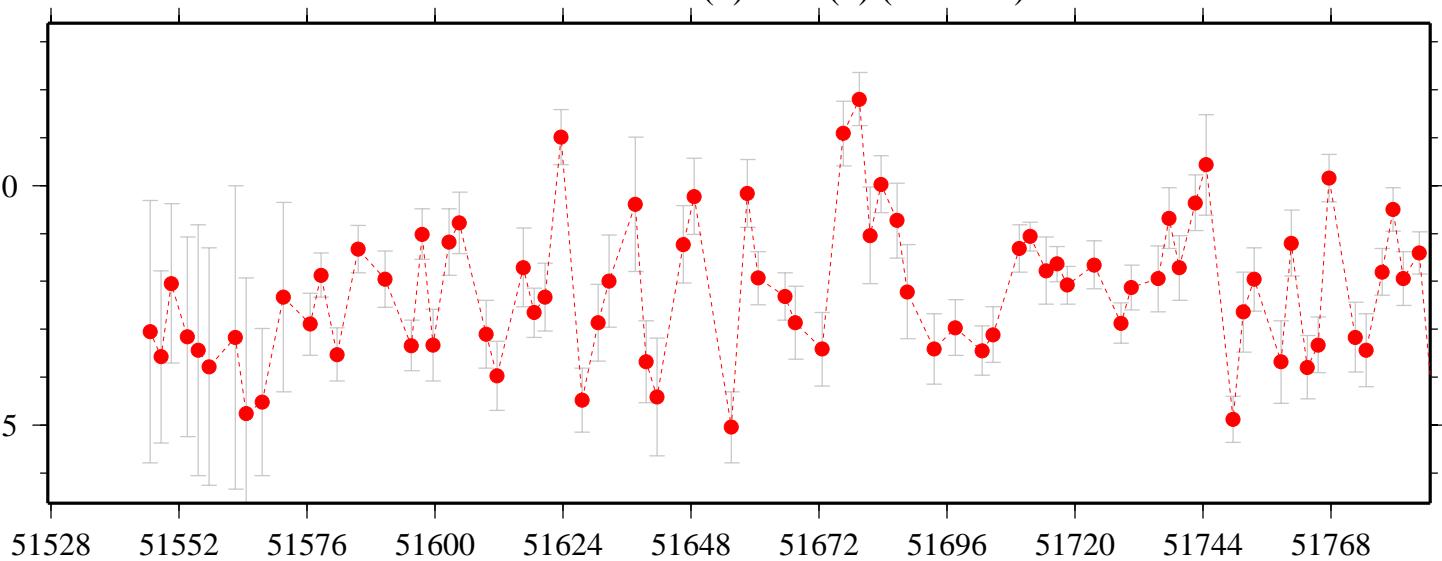


# USNO(d) - NPL(b)

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)		
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP
51757.5000		12.9							1.5	
51758.6097	3.1	12.3	-87.343		-9.2	90.5	99.7	0.8	2.0	0.008
51759.5000		7.9	-87.270				95.2		1.0	0.005
51760.6097	3.5	6.5	-87.200		-3.0	90.7	93.7	0.4	1.7	0.005
51761.5000		7.8	-87.000				94.8		1.6	0.005
51762.5000		10.4	-87.056				97.4		1.3	0.003
51763.6097	5.1	14.5	-86.757		-9.5	91.8	101.3	0.4	1.6	0.005
51764.5000		10.7	-86.645				97.4		1.5	0.006
51765.6097	5.1	13.4	-87.227		-8.3	92.3	100.7	0.4	1.4	0.004
51766.5000		6.6	-87.834				94.4		1.0	0.005
51767.6097	4.0	3.6	-88.238		0.4	92.3	91.9	0.4	1.2	0.005
51768.5000		7.4	-88.509				95.9		1.5	0.007
51769.5000		3.4	-88.882				92.3		1.5	0.008
51770.5000		4.7							1.6	
51771.5000		9.7							1.6	
51772.6097	2.1	10.0			-7.9			0.4	1.8	
51773.5000		9.7							1.4	
51774.6097	1.2	9.8			-8.6			0.3	1.9	
51775.5000		9.7							1.7	
51776.5000		6.9							1.5	
51777.6097	-0.7	3.8			-4.5			0.4	1.2	
51778.5000		6.7							1.6	
51779.6097	-0.9	0.3			-1.2			0.4	1.1	
51780.5000		6.5							1.4	
51781.6097	-1.8	3.0			-4.8			0.4	1.3	
51782.5000		3.3							1.5	
51783.5000		6.4							1.2	
51784.6097	-1.3	2.2			-3.5			0.4	1.0	
51785.5000		8.9							1.2	
51786.6097	-3.4	6.6			-10.0			0.4	1.4	
<b>USNO(d):</b>					<b>NPL(b):</b>					
TW: USNO_TW_USNO					TW: NPL_TW_NPL					
CV: USNO_CV_TTR1-2					CV: NPL_CV_NPL					
CP: USNO_CP_USNB					CP: NPL_CP_NPLB					

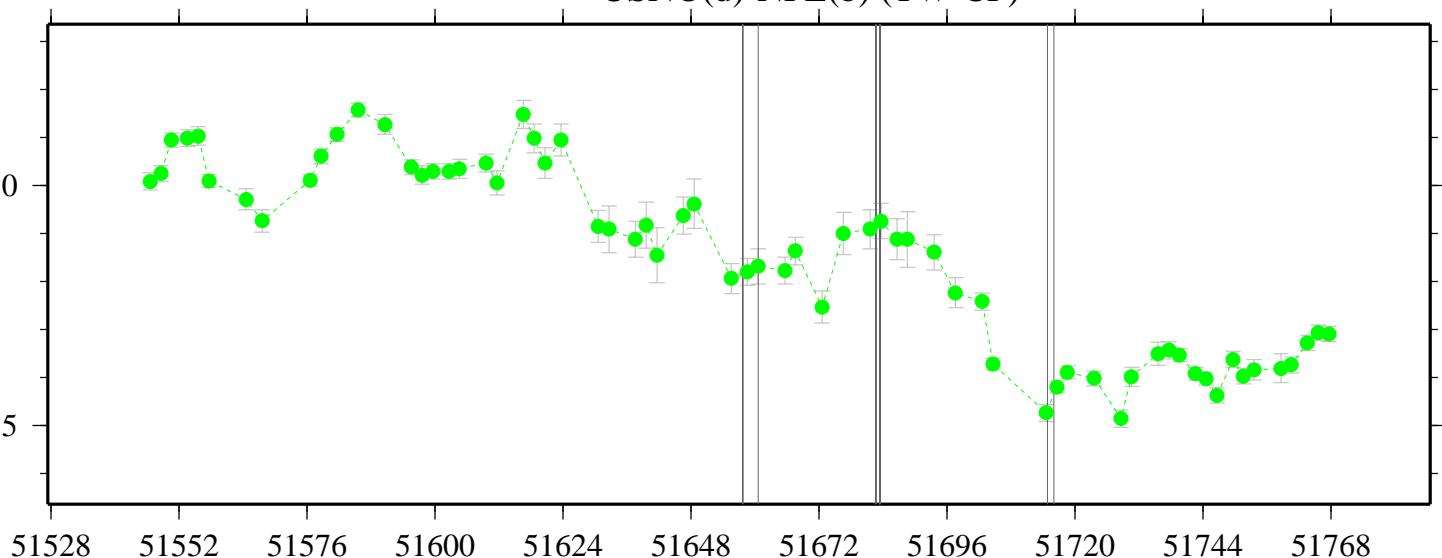
USNO(d)-NPL(b) (TW-CV)

NANOSECONDS



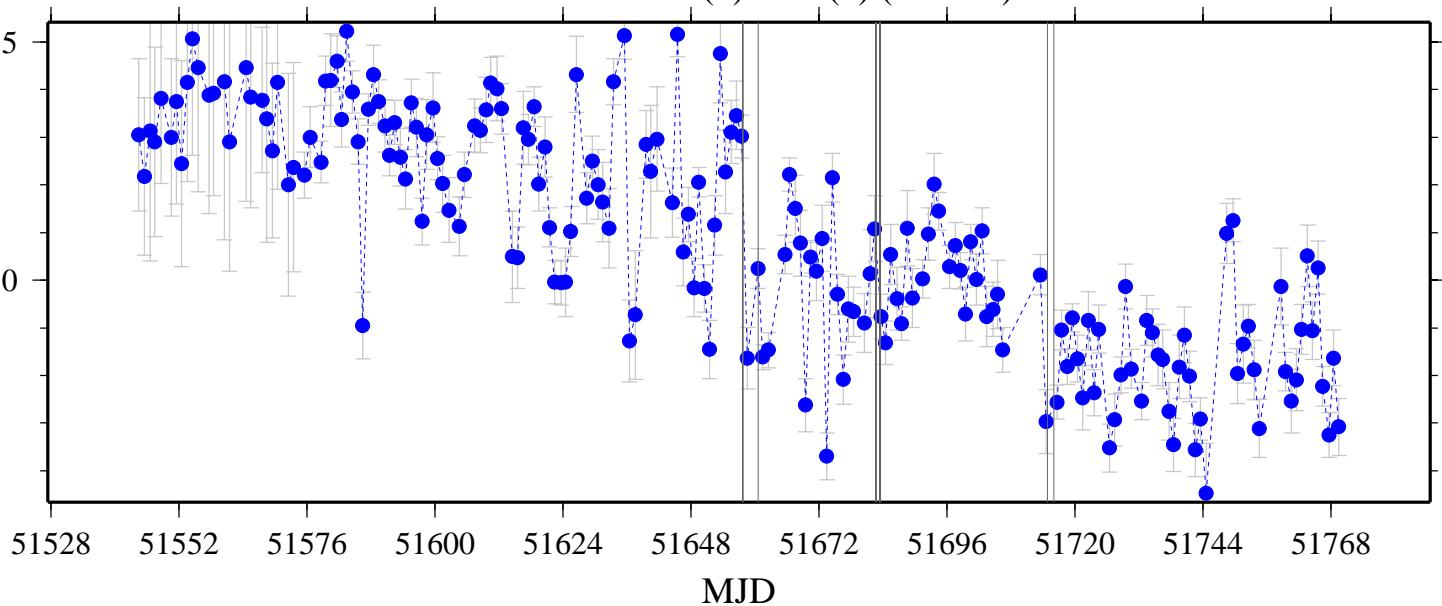
USNO(d)-NPL(b) (TW-CP)

NANOSECONDS



USNO(d)-NPL(b) (CV-CP)

NANOSECONDS



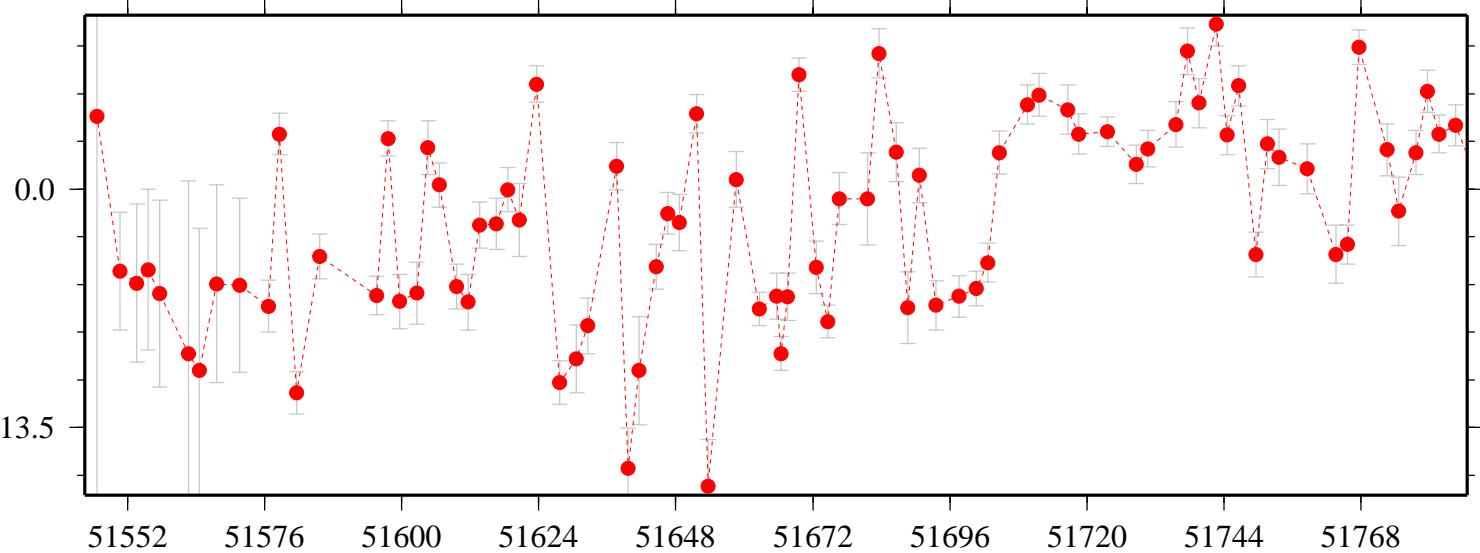
x and y-axes are same scale

# USNO(d) - PTB(a)

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)		
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP
51757.5000		-3.6							1.0	
51758.6160	-5.0	-6.2	19.868	+ 1.038CP	1.1	-24.9	-26.0	0.6	1.3	0.026
51759.5000		-9.1	19.363				-28.5		0.9	0.016
51760.5000		-6.5	20.438				-26.9		1.3	0.032
51761.5000		-6.6	20.845				-27.4		1.2	0.014
51762.5000		-0.8	22.062				-22.8		1.1	0.015
51763.6160	0.1	3.8	23.169		-3.7	-23.0	-19.3	0.6	1.5	0.022
51764.5000		-0.8	23.445				-24.3		0.9	0.028
51765.6160	2.0	5.2	21.207		-3.1	-19.2	-16.0	0.6	0.9	0.020
51766.5000		-3.6	21.206				-24.8		0.9	0.016
51767.6160	0.2	-7.8	21.881		8.1	-21.7	-29.7	0.5	0.8	0.019
51768.5000		-0.4	24.001				-24.4		1.3	0.013
51769.5000		-2.3	26.164				-28.5		1.3	0.026
51770.5000		-0.6							1.4	
51771.5000		4.7							1.0	
51772.6160	10.2	8.0			2.2			0.6	1.3	
51773.5000		9.6							1.1	
51774.6160	8.9	10.1			-1.2			0.6	1.9	
51775.5000		6.4	28.858	+ 2.951CP			-22.5		1.3	0.037
51776.5000		5.9							1.0	
51777.6160	6.7	4.6			2.1			0.6	1.1	
51778.5000		5.0	30.940	+ 2.528CP			-26.0		1.0	0.022
51779.6160	6.1	0.5	31.291		5.6	-25.2	-30.8	0.5	1.1	0.025
51780.5000		5.2	29.108				-24.0		1.2	0.013
51781.6160	4.4	1.3	29.863		3.1	-25.5	-28.6	0.6	0.9	0.017
51782.5000		0.8	29.813				-29.0		1.1	0.017
51783.5000		4.2	29.246				-25.0		1.0	0.018
51784.6160	4.6	1.0	29.934		3.6	-25.3	-29.0	0.6	1.0	0.016
51785.5000		6.4	31.544				-25.1		0.9	0.016
51786.6160	6.3	4.3	33.715		1.9	-27.4	-29.4	0.5	1.0	0.011
<b>USNO(d):</b>					<b>PTB(a):</b>					
TW: USNO_TW_USNO					TW: PTB_TW_PTB					
CV: USNO_CV_TTR1-2					CV: PTB_CV_PTB					
CP: USNO_CP_USNB					CP: PTB_CP_PTBA					

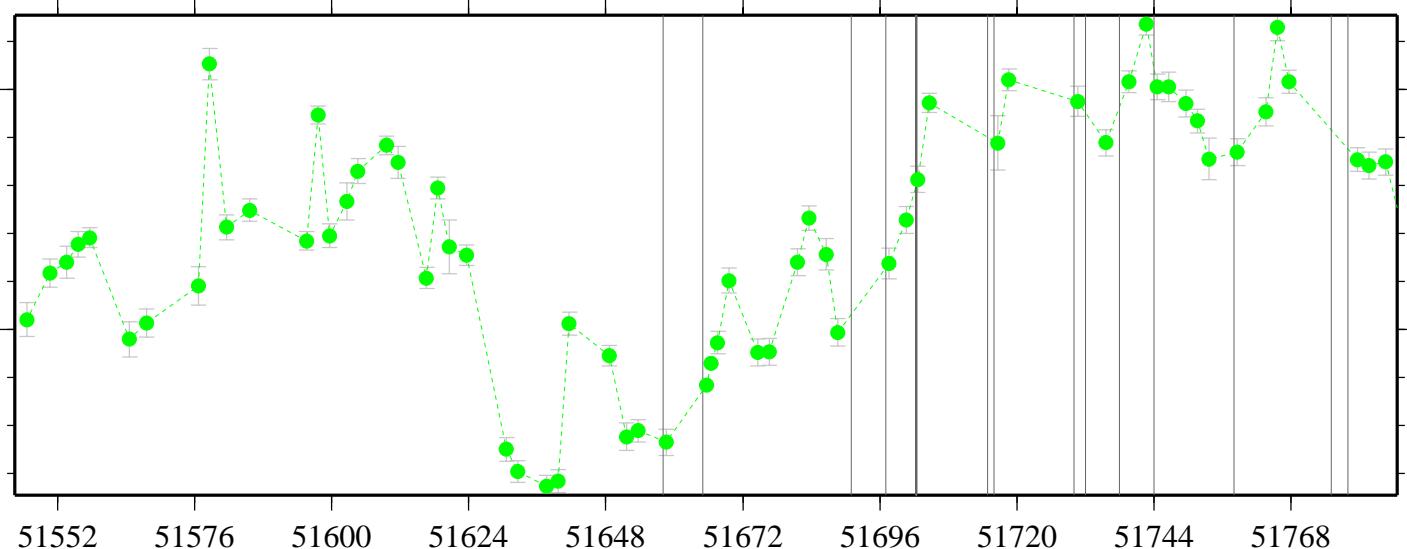
### USNO(d)-PTB(a) (TW-CV)

NANOSECONDS



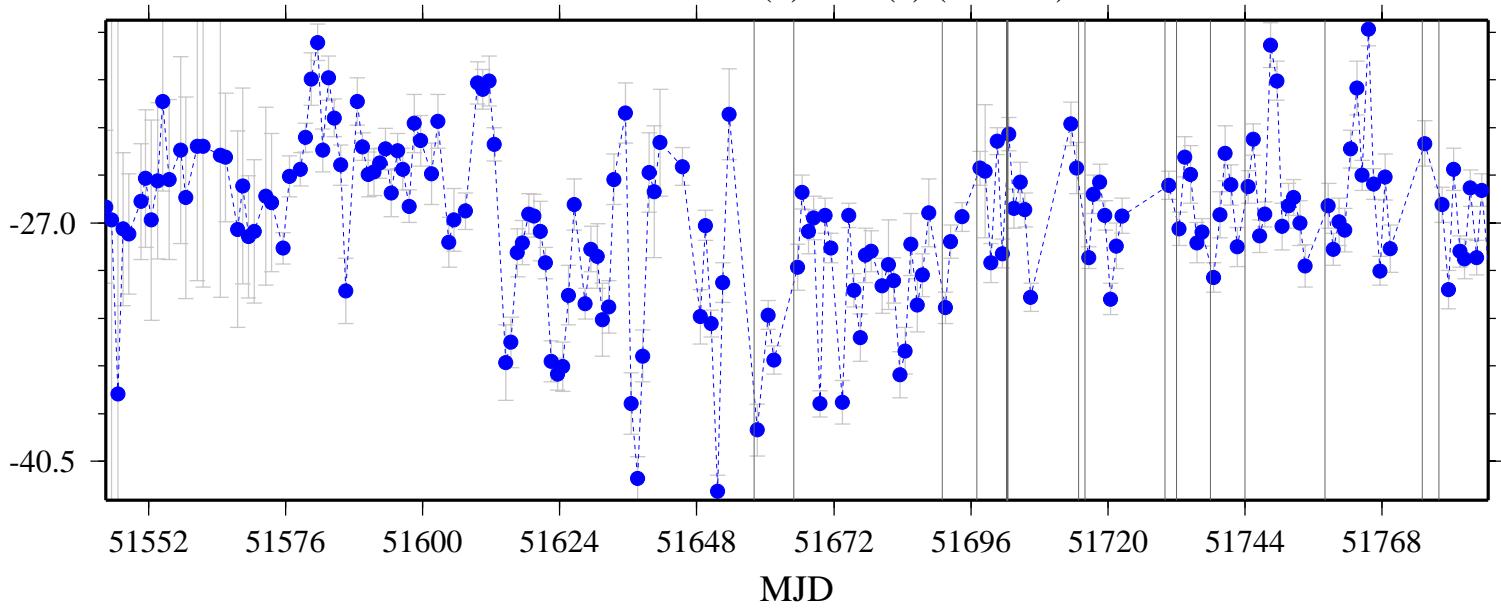
### USNO(d)-PTB(a) (TW-CP)

NANOSECONDS



### USNO(d)-PTB(a) (CV-CP)

NANOSECONDS

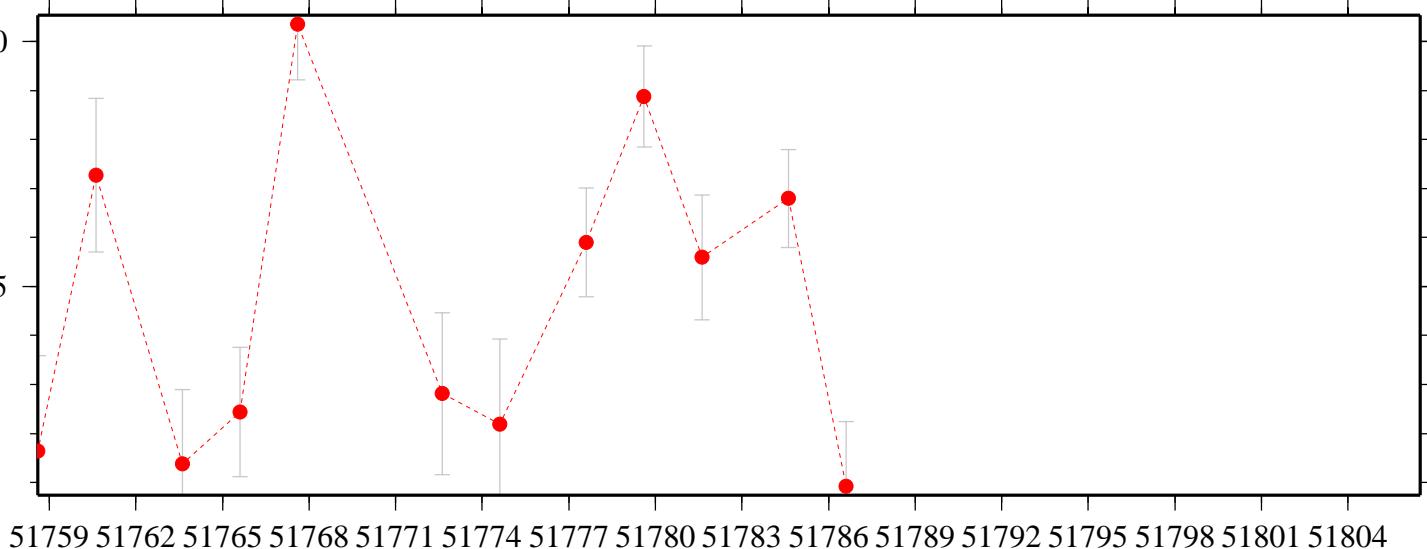


# USNO(d) - NPL(d)

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)		
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP
51757.5000		12.9							1.5	
51758.6097	3.1	12.3			-9.2			0.8	2.0	
51759.5000		7.9							1.0	
51760.6097	3.5	6.5			-3.0			0.4	1.7	
51761.5000		7.8							1.6	
51762.5000		10.4							1.3	
51763.6097	5.1	14.5			-9.5			0.4	1.6	
51764.5000		10.7							1.5	
51765.6097	5.1	13.4			-8.3			0.4	1.4	
51766.5000		6.6							1.0	
51767.6097	4.0	3.6			0.4			0.4	1.2	
51768.5000		7.4							1.5	
51769.5000		3.4							1.5	
51770.5000		4.7							1.6	
51771.5000		9.7							1.6	
51772.6097	2.1	10.0			-7.9			0.4	1.8	
51773.5000		9.7							1.4	
51774.6097	1.2	9.8			-8.6			0.3	1.9	
51775.5000		9.7							1.7	
51776.5000		6.9							1.5	
51777.6097	-0.7	3.8			-4.5			0.4	1.2	
51778.5000		6.7	0.000	- 8496.767cp			6.7		1.6	0.003
51779.6097	-0.9	0.3	-0.106		-1.2	-0.8	0.4	0.4	1.1	0.004
51780.5000		6.5	0.009				6.4		1.4	0.004
51781.6097	-1.8	3.0	0.114		-4.8	-1.9	2.9	0.4	1.3	0.004
51782.5000		3.3	0.292				3.0		1.5	0.005
51783.5000		6.4	0.092				6.3		1.2	0.004
51784.6097	-1.3	2.2	-0.117		-3.5	-1.2	2.3	0.4	1.0	0.003
51785.5000		8.9	-0.257				9.2		1.2	0.006
51786.6097	-3.4	6.6	-0.175		-10.0	-3.2	6.7	0.4	1.4	0.007
<b>USNO(d):</b> TW: USNO_TW_USNO CV: USNO_CV_TTR1-2 CP: USNO_CP_USNB					<b>NPL(d):</b> TW: NPL_TW_NPL CV: NPL_CV_NPL CP: NPL_CP_NPLD					

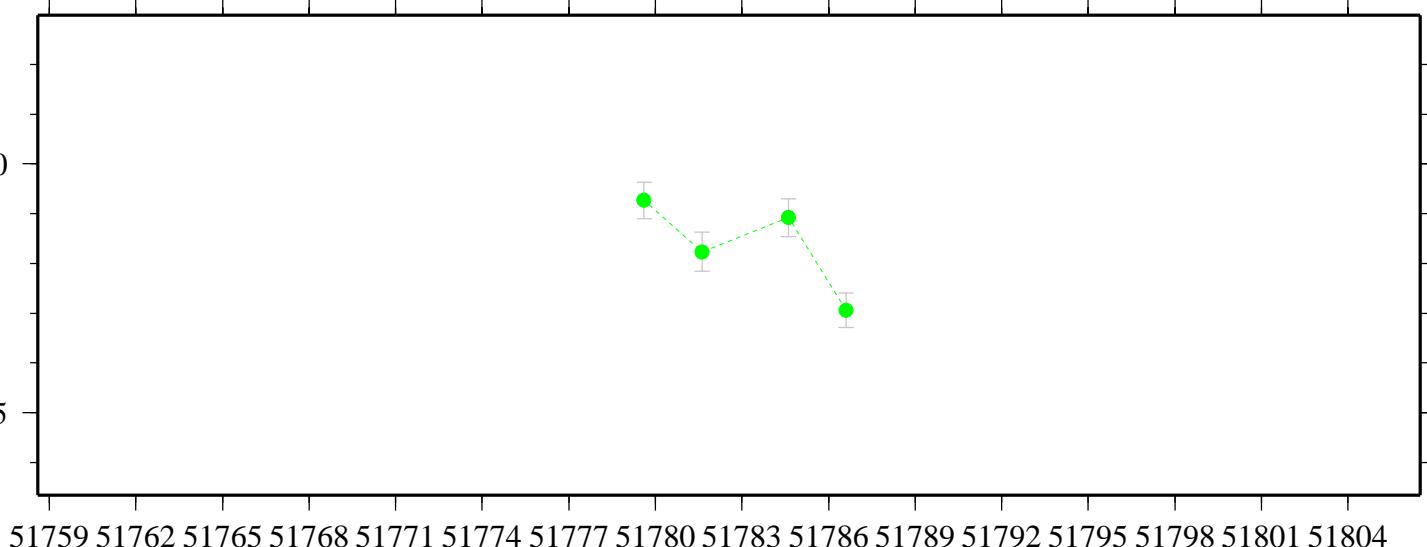
### USNO(d)-NPL(d) (TW-CV)

NANOSECONDS



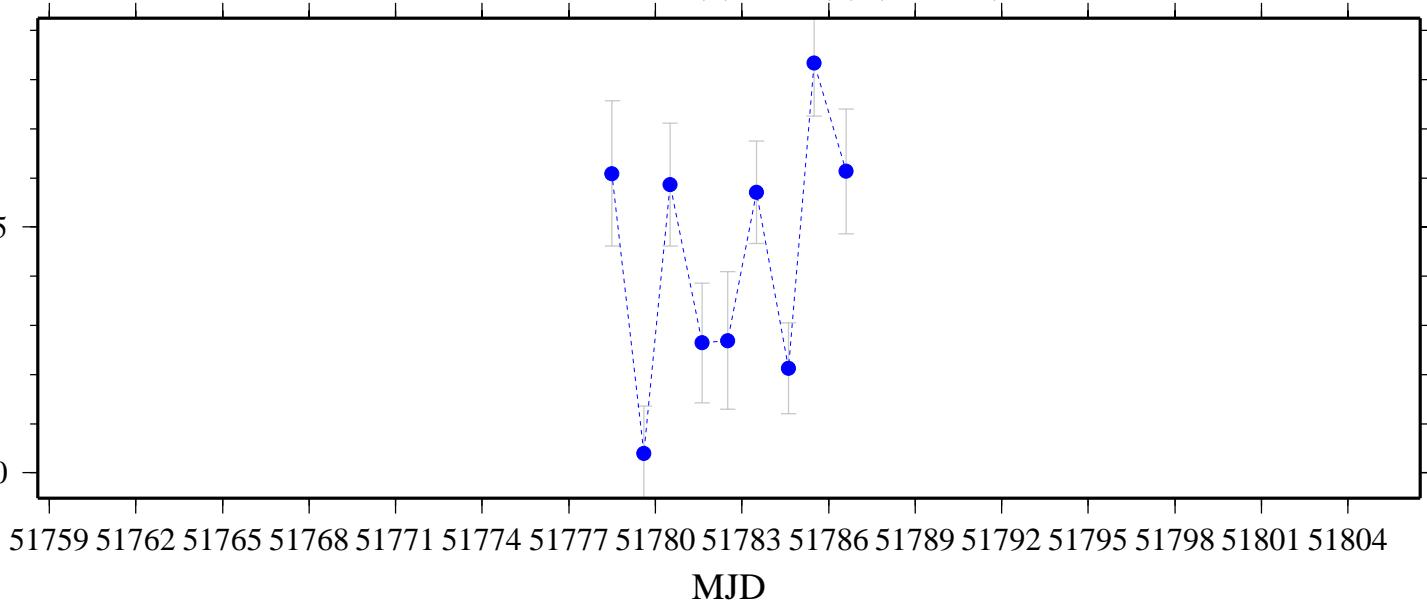
### USNO(d)-NPL(d) (TW-CP)

NANOSECONDS



### USNO(d)-NPL(d) (CV-CP)

NANOSECONDS



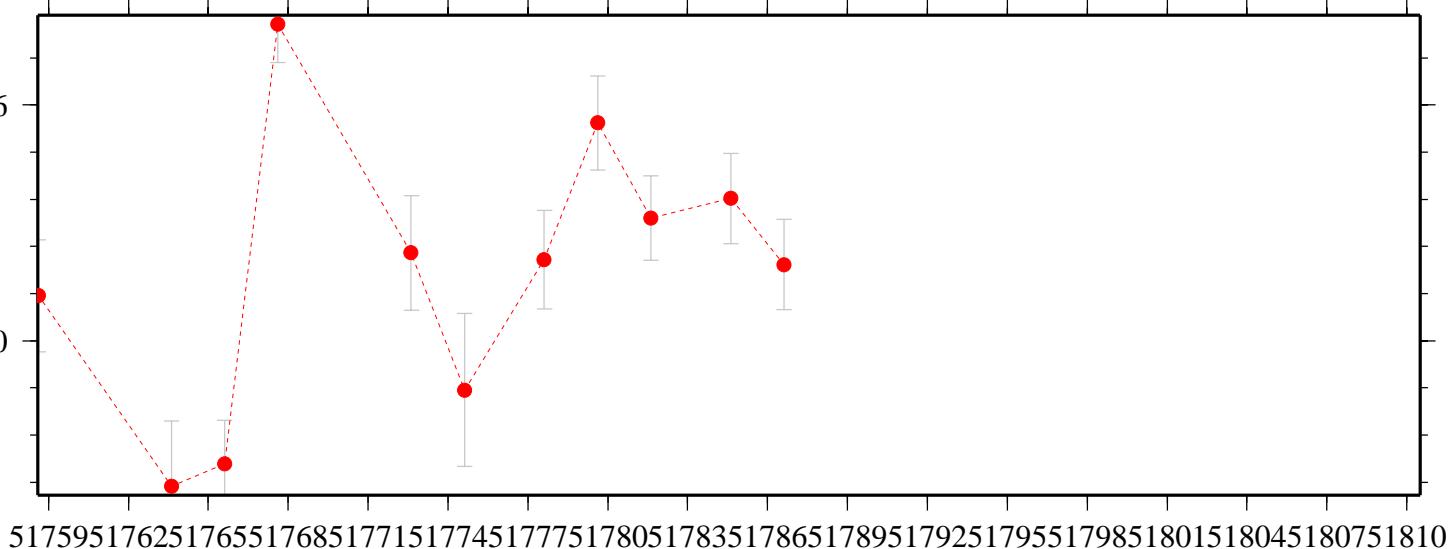
x and y-axes are same scale

# USNO(d) - PTB(b)

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)			
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP	
51757.5000		-3.6							1.0		
51758.6160	-5.0	-6.2				1.1		0.6	1.3		
51759.5000		-9.1							0.9		
51760.5000		-6.5							1.3		
51761.5000		-6.6							1.2		
51762.5000		-0.8							1.1		
51763.6160	0.1	3.8				-3.7		0.6	1.5		
51764.5000		-0.8							0.9		
51765.6160	2.0	5.2				-3.1		0.6	0.9		
51766.5000		-3.6							0.9		
51767.6160	0.2	-7.8				8.1		0.5	0.8		
51768.5000		-0.4							1.3		
51769.5000		-2.3							1.3		
51770.5000		-0.6							1.4		
51771.5000		4.7							1.0		
51772.6160	10.2	8.0				2.2		0.6	1.3		
51773.5000		9.6							1.1		
51774.6160	8.9	10.1				-1.2		0.6	1.9		
51775.5000		6.4							1.3		
51776.5000		5.9							1.0		
51777.6160	6.7	4.6				2.1		0.6	1.1		
51778.5000		5.0							1.0		
51779.6160	6.1	0.5				5.6		0.5	1.1		
51780.5000		5.2							1.2		
51781.6160	4.4	1.3				3.1		0.6	0.9		
51782.5000		0.8	0.000	+ 114.887CP				0.8	1.1	0.017	
51783.5000		4.2	-0.597					4.8	1.0	0.019	
51784.6160	4.6	1.0	-0.556			3.6	5.2	1.5	0.6	1.0	0.018
51785.5000		6.4	0.113					6.3		0.9	0.015
51786.6160	6.3	4.3	1.569			1.9	4.7	2.8	0.5	1.0	0.010
USNO(d):					PTB(b):						
TW: USNO_TW_USNO					TW: PTB_TW_PTB						
CV: USNO_CV_TTR1-2					CV: PTB_CV_PTB						
CP: USNO_CP_USNB					CP: PTB_CP_PTBB						

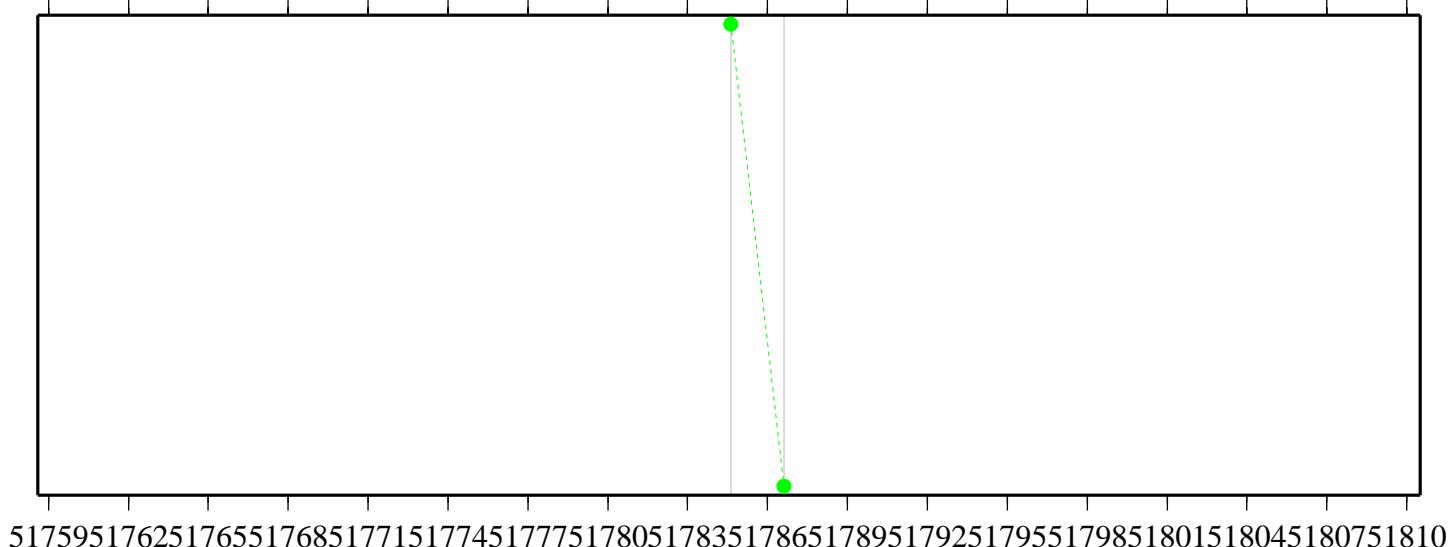
### USNO(d)-PTB(b) (TW-CV)

NANOSECONDS



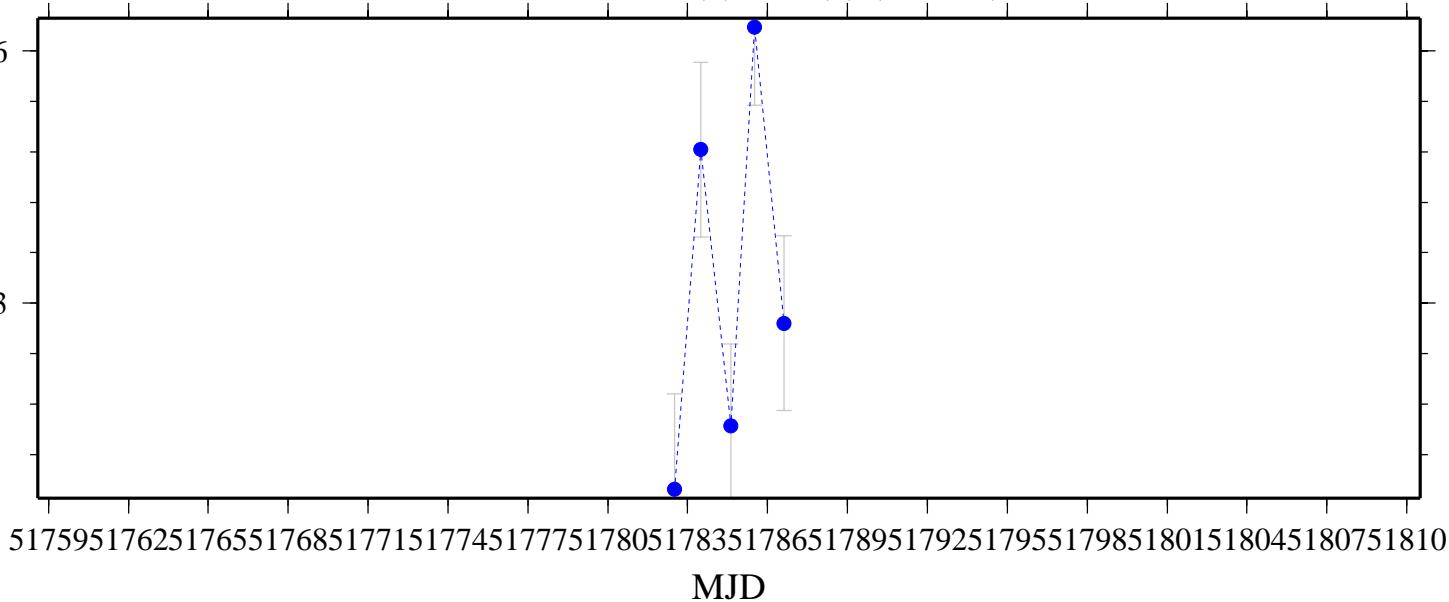
### USNO(d)-PTB(b) (TW-CP)

NANOSECONDS



### USNO(d)-PTB(b) (CV-CP)

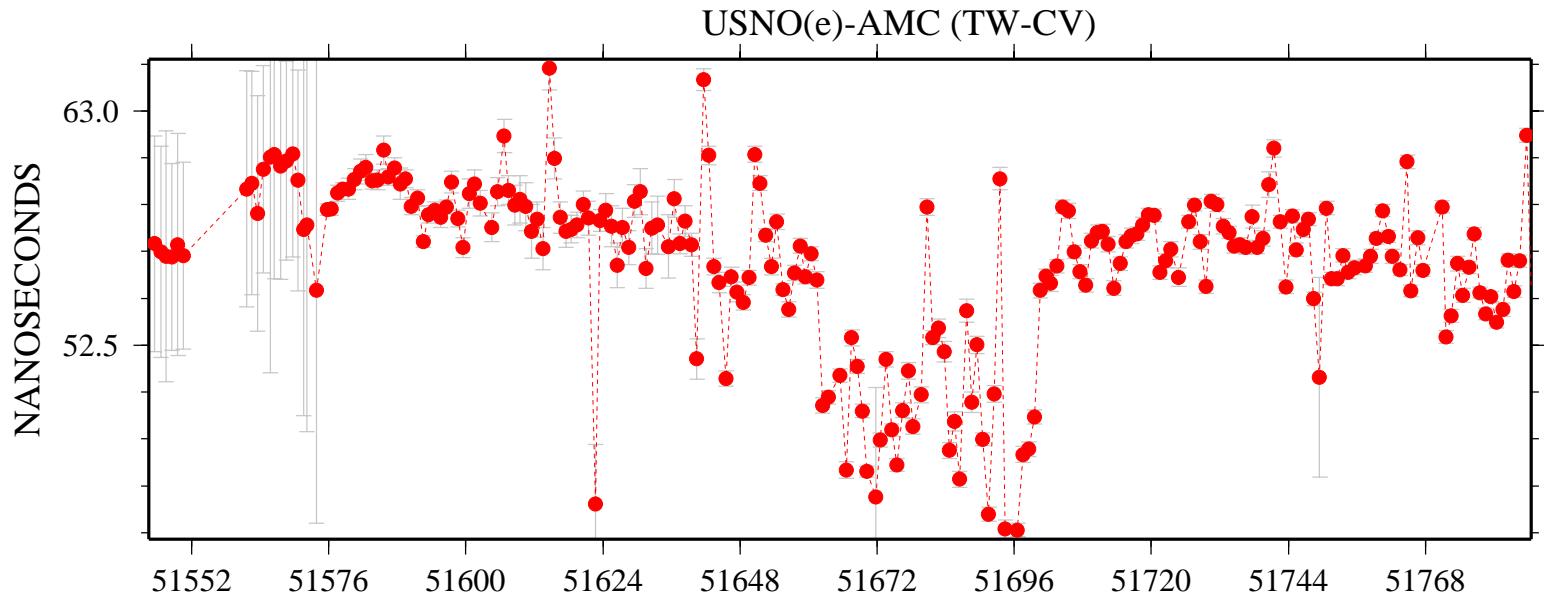
NANOSECONDS



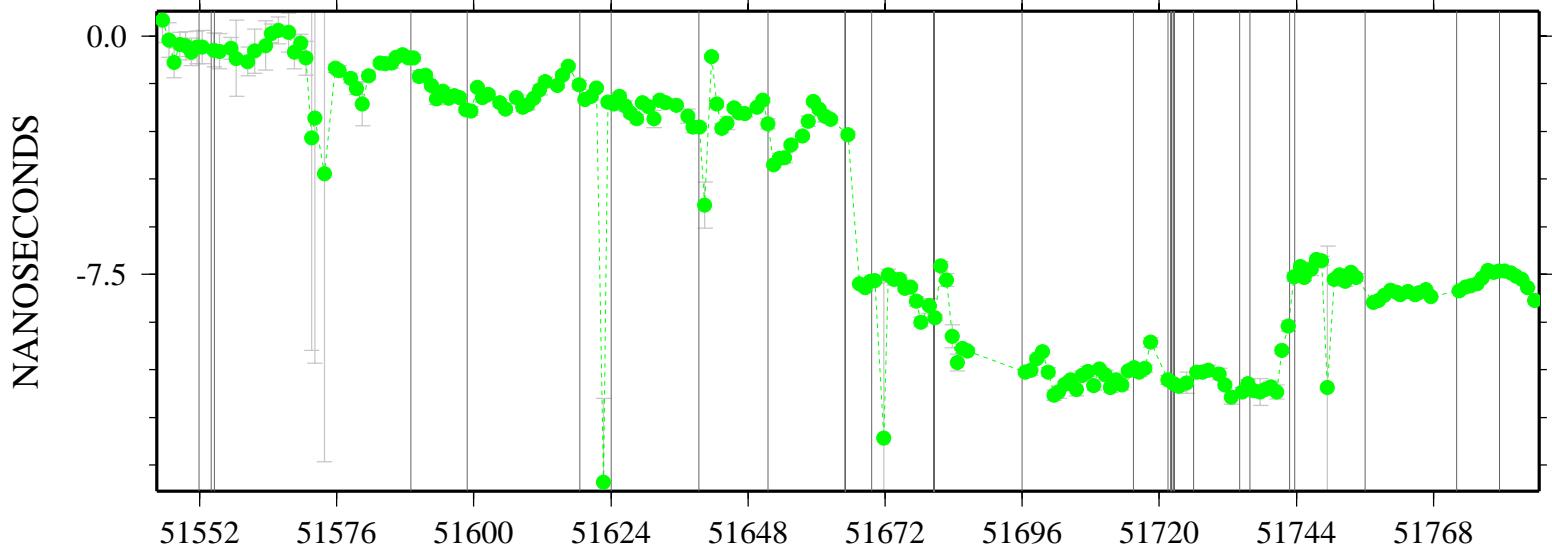
# USNO(e) - AMC

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)		
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP
51757.4306	0.0	-56.1	8.387		56.1	-8.4	-64.4	0.0	0.3	0.004
51758.4309	0.0	-56.5	8.317		56.5	-8.3	-64.8	0.0	0.3	0.004
51759.4309	0.0	-57.3	8.151		57.3	-8.2	-65.4	0.0	0.3	0.003
51760.5143	0.0	-58.5	8.005		58.5	-8.0	-66.5	0.0	0.3	0.003
51761.5139	0.0	-57.4	8.056		57.4	-8.1	-65.4	0.0	0.3	0.003
51762.2011	0.0	-56.5	8.144		56.5	-8.1	-64.6	0.0	0.3	0.003
51763.5760	0.0	-55.9	8.046		55.9	-8.0	-63.9	0.0	0.2	0.003
51764.8056	0.0	-60.7	8.143		60.7	-8.1	-68.9	0.0	0.3	0.003
51765.4094	0.0	-54.9	8.081		54.9	-8.1	-63.0	0.0	0.3	0.004
51766.6806	0.0	-57.3	7.979		57.3	-8.0	-65.3	0.0	0.3	0.004
51767.5788	0.0	-55.8	8.201		55.8	-8.2	-64.0	0.0	0.3	0.003
51768.0559	0.0	-53.8	8.294		53.8	-8.3	-62.1	Inf	0.3	0.004
51769.5000		-57.6							0.3	
51770.9101	0.0	-58.7			58.7			0.0	0.3	
51771.5566	0.0	-52.9			52.9			0.0	0.3	
51772.4934	0.0	-53.8	8.014	+ 733.267cp	53.8	-8.0	-61.8	0.0	0.3	0.004
51773.6184	0.0	-56.2	7.887		56.2	-7.9	-64.0	0.0	0.3	0.002
51774.5552	0.0	-54.7	7.857		54.7	-7.9	-62.6	0.0	0.3	0.003
51775.5980	0.0	-56.0	7.790		56.0	-7.8	-63.8	0.0	0.3	0.002
51776.5559	0.0	-57.5	7.617		57.5	-7.6	-65.1	0.0	0.3	0.002
51777.5139	0.0	-54.9	7.379		54.9	-7.4	-62.2	0.0	0.3	0.002
51778.4927	0.0	-53.9	7.441		53.9	-7.4	-61.3	0.0	0.3	0.004
51779.4927	0.0	-54.7	7.383	- 1204.881cp	54.7	-7.4	-62.1	0.0	0.2	0.002
51780.4518	0.0	-53.5	7.401		53.5	-7.4	-60.9	0.0	0.3	0.003
51781.5344	0.0	-54.1	7.444		54.1	-7.4	-61.5	0.0	0.3	0.004
51782.5139	0.0	-56.3	7.548		56.3	-7.5	-63.9	0.0	0.3	0.003
51783.5143	0.0	-54.9	7.647		54.9	-7.6	-62.6	0.0	0.3	0.002
51784.4938	0.0	-56.3	7.914		56.3	-7.9	-64.2	0.0	0.3	0.003
51785.7455	0.0	-61.9	8.322		61.9	-8.3	-70.2	0.0	0.3	0.005
51786.5351	0.0	-54.7	8.614		54.7	-8.6	-63.3	0.0	0.2	0.004
<b>USNO(e):</b>					<b>AMC:</b>					
TW: USNO_TW_USNO					TW: AMC_TW_AMC					
CV: USNO_CV_AOA1					CV: AMC_CV_AOA2					
CP: USNO_CP_NIM1					CP: <a href="#">AMC_CP_AMC2</a>					

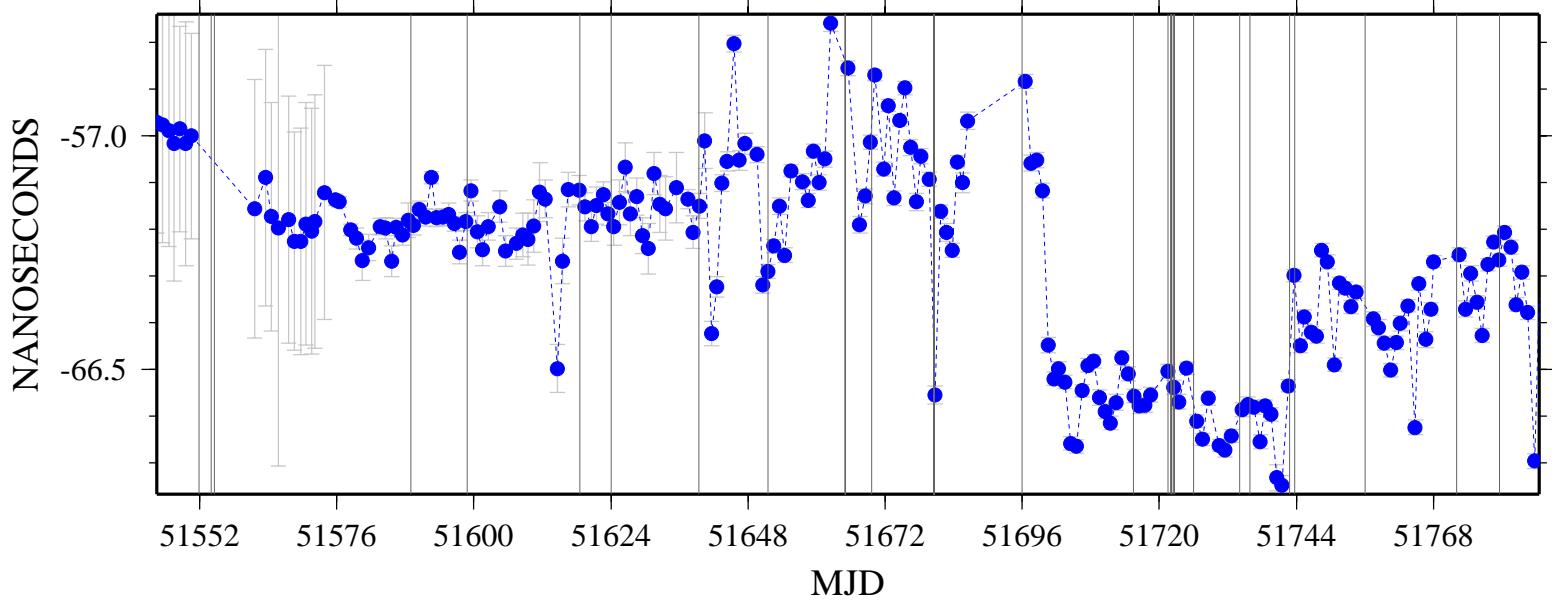
USNO(e)-AMC (TW-CV)



USNO(e)-AMC (TW-CP)



USNO(e)-AMC (CV-CP)

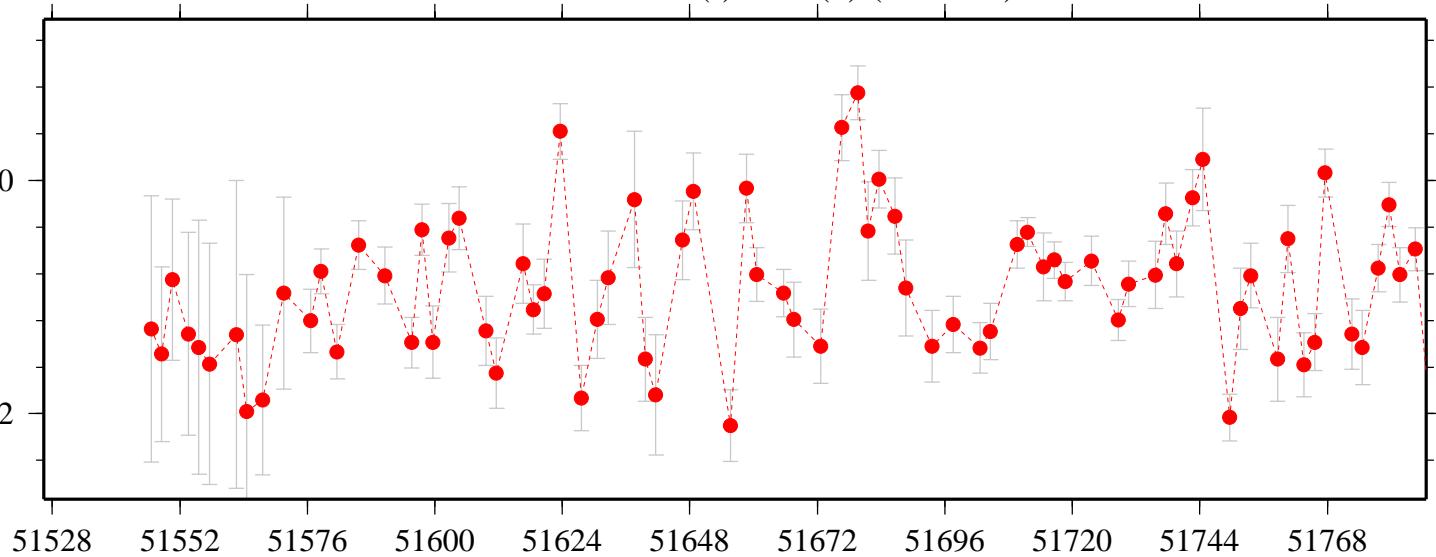


# USNO(f) - NPL(b)

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)		
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP
51757.5000		12.9	-92.177	+ 0.119 CP			105.1		1.5	0.008
51758.6097	3.1	12.3	-92.093		-9.2	95.2	104.4	0.8	2.0	0.007
51759.5000		7.9	-92.074				100.0		1.0	0.005
51760.6097	3.5	6.5	-92.045		-3.0	95.5	98.5	0.4	1.7	0.005
51761.5000		7.8	-91.839				99.6		1.6	0.005
51762.5000		10.4	-91.888				102.3		1.3	0.003
51763.6097	5.1	14.5	-91.680		-9.5	96.7	106.2	0.4	1.6	0.005
51764.5000		10.7	-91.513				102.2		1.5	0.005
51765.6097	5.1	13.4	-91.635		-8.3	96.7	105.1	0.4	1.4	0.005
51766.5000		6.6	-91.884				98.5		1.0	0.005
51767.6097	4.0	3.6	-91.985		0.4	96.0	95.6	0.4	1.2	0.006
51768.5000		7.4	-92.143				99.6		1.5	0.007
51769.5000		3.4							1.5	
51770.5000		4.7							1.6	
51771.5000		9.7							1.6	
51772.6097	2.1	10.0			-7.9			0.4	1.8	
51773.5000		9.7							1.4	
51774.6097	1.2	9.8			-8.6			0.3	1.9	
51775.5000		9.7							1.7	
51776.5000		6.9							1.5	
51777.6097	-0.7	3.8			-4.5			0.4	1.2	
51778.5000		6.7							1.6	
51779.6097	-0.9	0.3			-1.2			0.4	1.1	
51780.5000		6.5							1.4	
51781.6097	-1.8	3.0			-4.8			0.4	1.3	
51782.5000		3.3							1.5	
51783.5000		6.4							1.2	
51784.6097	-1.3	2.2			-3.5			0.4	1.0	
51785.5000		8.9							1.2	
51786.6097	-3.4	6.6			-10.0			0.4	1.4	
<b>USNO(f):</b>					<b>NPL(b):</b>					
TW: USNO_TW_USNO					TW: NPL_TW_NPL					
CV: USNO_CV_TTR1-2					CV: NPL_CV_NPL					
CP: USNO_CP_NIM1					CP: NPL_CP_NPLB					

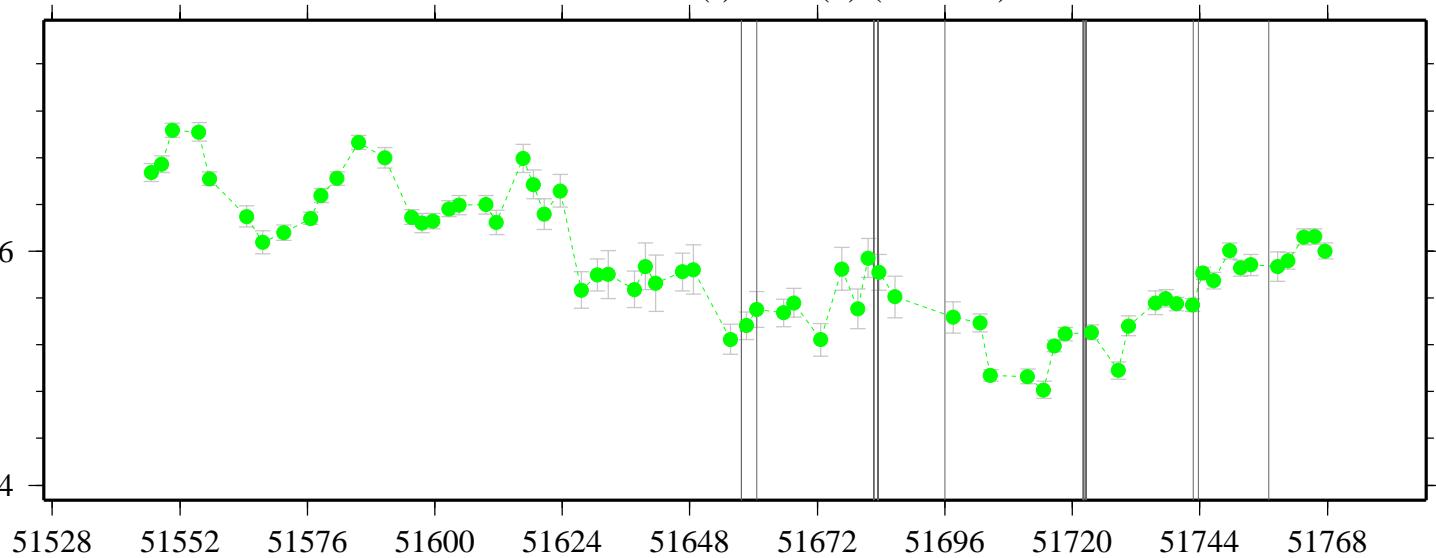
### USNO(f)-NPL(b) (TW-CV)

NANOSECONDS



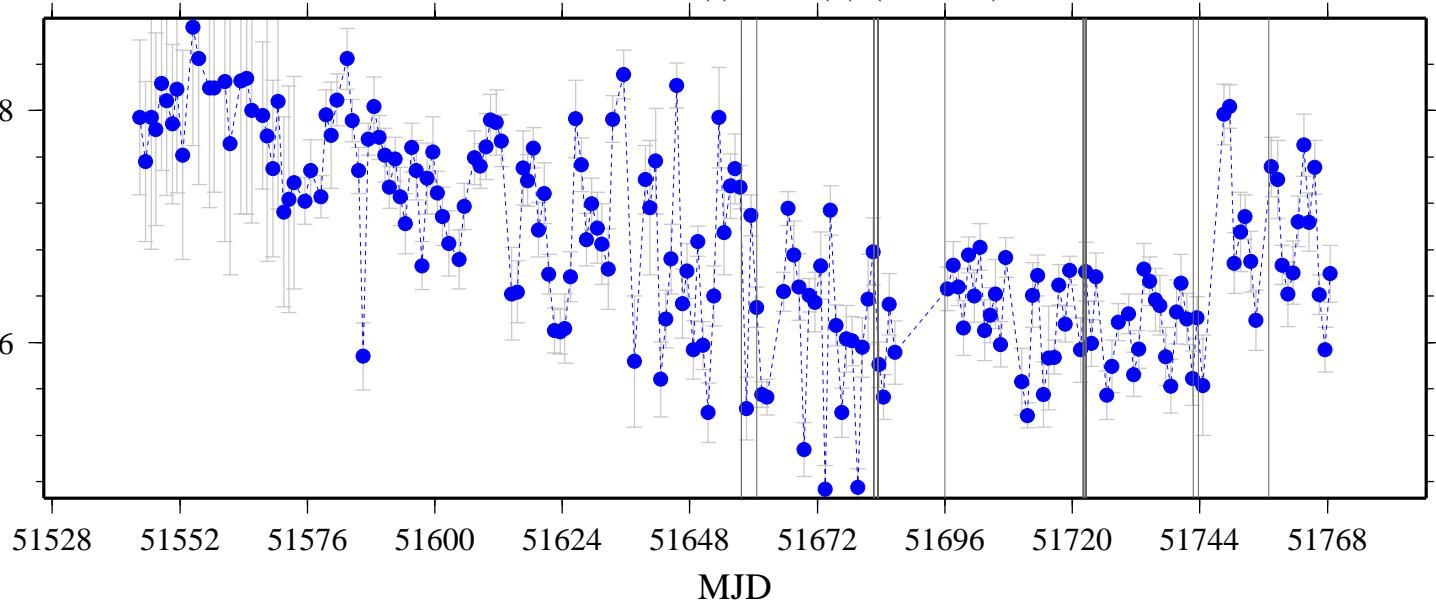
### USNO(f)-NPL(b) (TW-CP)

NANOSECONDS



### USNO(f)-NPL(b) (CV-CP)

NANOSECONDS



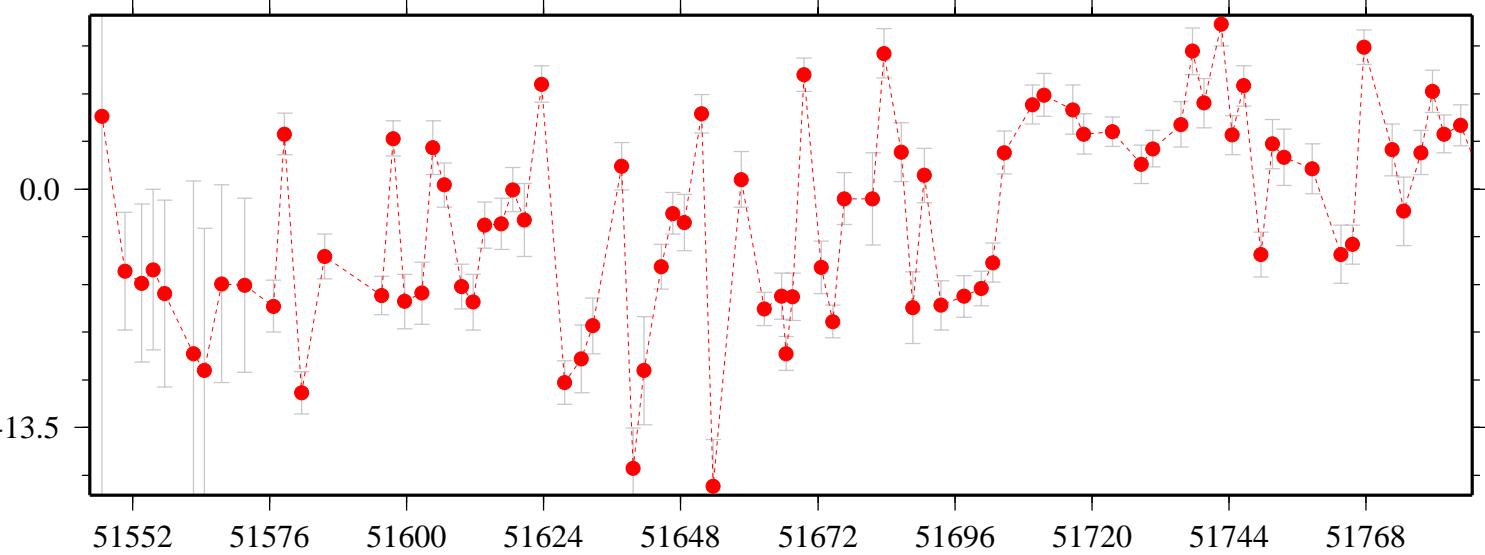
x and y-axes are same scale

# USNO(f) - PTB(a)

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)		
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP
51757.5000		-3.6	10.803	+ 1.701 <sub>CP</sub>			-14.4		1.0	0.020
51758.6160	-5.0	-6.2	12.632		1.1	-17.6	-18.8	0.6	1.3	0.026
51759.5000		-9.1	12.245				-21.4		0.9	0.015
51760.5000		-6.5	13.408				-19.9		1.3	0.033
51761.5000		-6.6	13.913				-20.5		1.2	0.014
51762.5000		-0.8	15.163				-15.9		1.1	0.015
51763.6160	0.1	3.8	16.298		-3.7	-16.2	-12.5	0.6	1.5	0.022
51764.5000		-0.8	16.791				-17.6		0.9	0.026
51765.6160	2.0	5.2	15.070		-3.1	-13.0	-9.9	0.6	0.9	0.020
51766.5000		-3.6	15.394				-19.0		0.9	0.017
51767.6160	0.2	-7.8	16.374		8.1	-16.2	-24.2	0.5	0.8	0.019
51768.5000		-0.4	18.630				-19.0		1.3	0.013
51769.5000		-2.3							1.3	
51770.5000		-0.6							1.4	
51771.5000		4.7							1.0	
51772.6160	10.2	8.0	22.272	- 1.671 <sub>CP</sub>	2.2	-12.1	-14.3	0.6	1.3	0.024
51773.5000		9.6	21.697				-12.1		1.1	0.027
51774.6160	8.9	10.1			-1.2			0.6	1.9	
51775.5000		6.4	22.412	+ 1.958 <sub>CP</sub>			-16.1		1.3	0.024
51776.5000		5.9	22.169				-16.2		1.0	0.011
51777.6160	6.7	4.6			2.1			0.6	1.1	
51778.5000		5.0	22.602	+ 2.269 <sub>CP</sub>			-17.6		1.0	0.022
51779.6160	6.1	0.5	23.086		5.6	-17.0	-22.6	0.5	1.1	0.025
51780.5000		5.2	21.190				-16.0		1.2	0.013
51781.6160	4.4	1.3	22.312		3.1	-17.9	-21.1	0.6	0.9	0.017
51782.5000		0.8	22.682				-21.9		1.1	0.017
51783.5000		4.2	22.586				-18.4		1.0	0.018
51784.6160	4.6	1.0	23.076		3.6	-18.5	-22.1	0.6	1.0	0.016
51785.5000		6.4	24.322				-17.9		0.9	0.016
51786.6160	6.3	4.3	25.970		1.9	-19.7	-21.6	0.5	1.0	0.011
<b>USNO(f):</b> TW: USNO_TW_USNO CV: USNO_CV_TTR1-2 CP: USNO_CP_NIM1					<b>PTB(a):</b> TW: PTB_TW_PTB CV: PTB_CV_PTB CP: PTB_CP_PTBA					

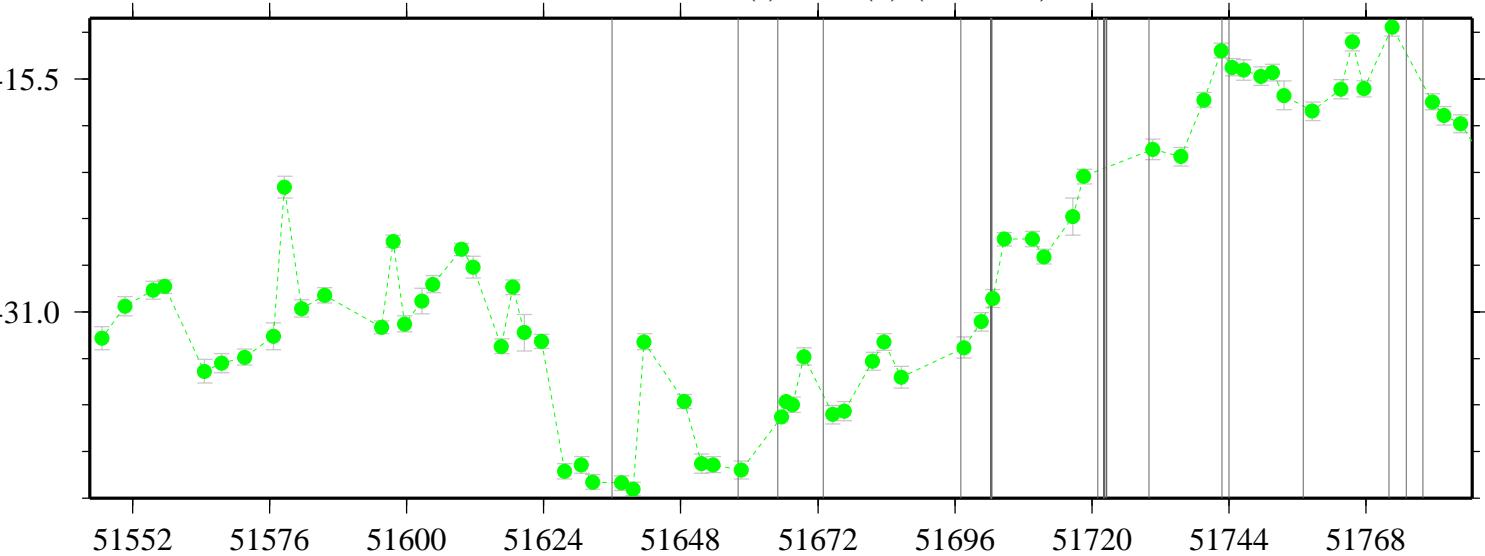
USNO(f)-PTB(a) (TW-CV)

NANOSECONDS



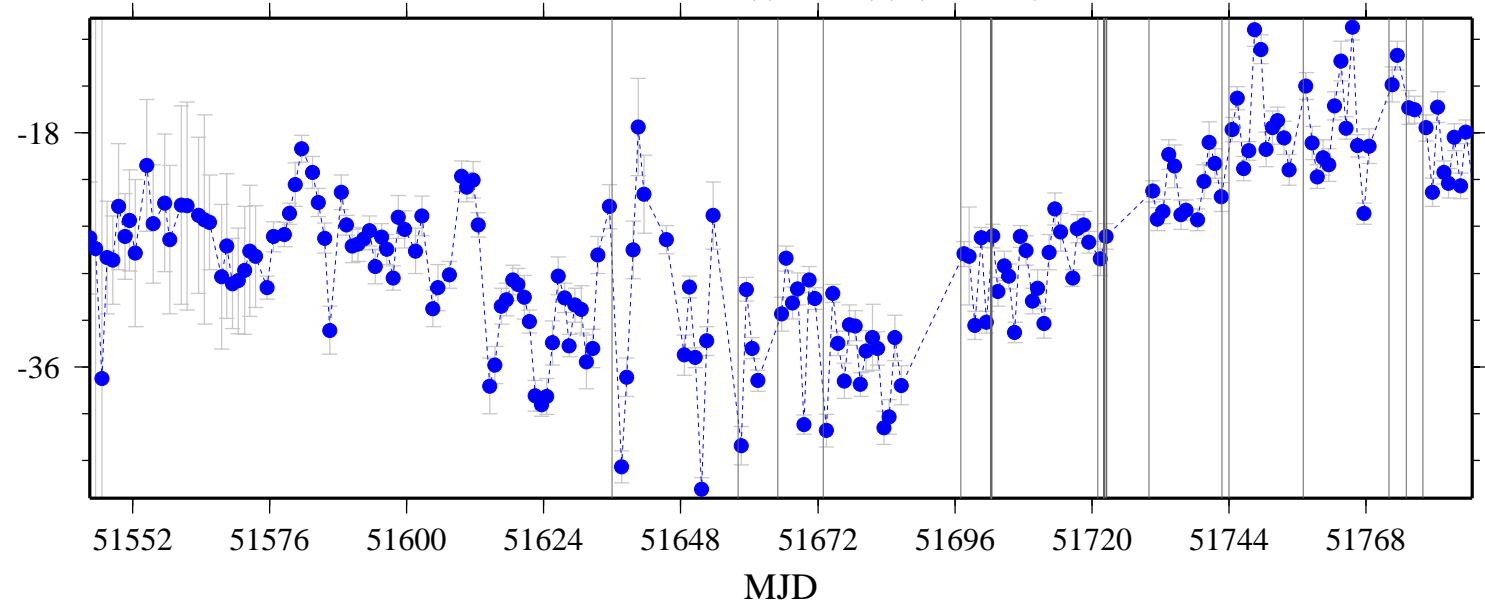
USNO(f)-PTB(a) (TW-CP)

NANOSECONDS



USNO(f)-PTB(a) (CV-CP)

NANOSECONDS

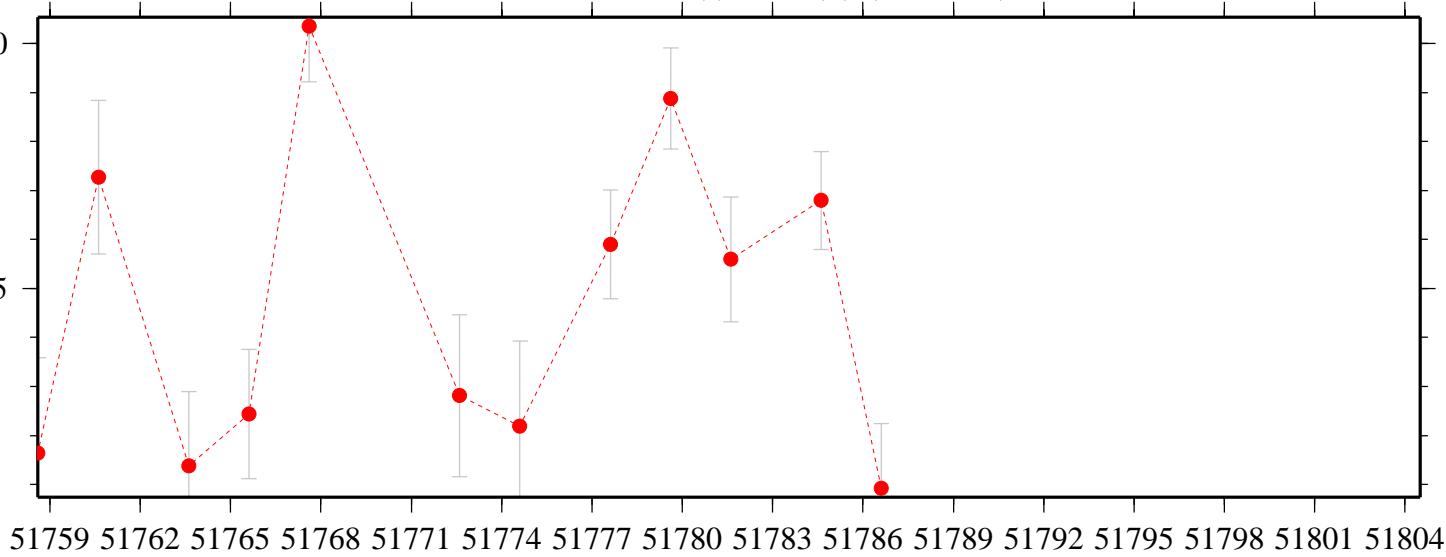


# USNO(f) - NPL(d)

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)		
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP
51757.5000		12.9							1.5	
51758.6097	3.1	12.3			-9.2			0.8	2.0	
51759.5000		7.9							1.0	
51760.6097	3.5	6.5			-3.0			0.4	1.7	
51761.5000		7.8							1.6	
51762.5000		10.4							1.3	
51763.6097	5.1	14.5			-9.5			0.4	1.6	
51764.5000		10.7							1.5	
51765.6097	5.1	13.4			-8.3			0.4	1.4	
51766.5000		6.6							1.0	
51767.6097	4.0	3.6			0.4			0.4	1.2	
51768.5000		7.4							1.5	
51769.5000		3.4							1.5	
51770.5000		4.7							1.6	
51771.5000		9.7							1.6	
51772.6097	2.1	10.0			-7.9			0.4	1.8	
51773.5000		9.7							1.4	
51774.6097	1.2	9.8			-8.6			0.3	1.9	
51775.5000		9.7							1.7	
51776.5000		6.9	0.000	- 510602.106cp			6.9		1.5	0.004
51777.6097	-0.7	3.8	-0.485		-4.5	-0.2	4.3	0.4	1.2	0.004
51778.5000		6.7	-0.736				7.4		1.6	0.003
51779.6097	-0.9	0.3	-0.865		-1.2	0.0	1.2	0.4	1.1	0.004
51780.5000		6.5	-0.825				7.3		1.4	0.005
51781.6097	-1.8	3.0	-0.688		-4.8	-1.1	3.7	0.4	1.3	0.004
51782.5000		3.3	-0.445				3.7		1.5	0.004
51783.5000		6.4	-0.554				6.9		1.2	0.005
51784.6097	-1.3	2.2	-0.687		-3.5	-0.6	2.9	0.4	1.0	0.003
51785.5000		8.9	-0.721				9.6		1.2	0.006
51786.6097	-3.4	6.6	-0.716		-10.0	-2.7	7.3	0.4	1.4	0.007
<b>USNO(f):</b> TW: USNO_TW_USNO CV: USNO_CV_TTR1-2 CP: USNO_CP_NIM1					<b>NPL(d):</b> TW: NPL_TW_NPL CV: NPL_CV_NPL CP: NPL_CP_NPLD					

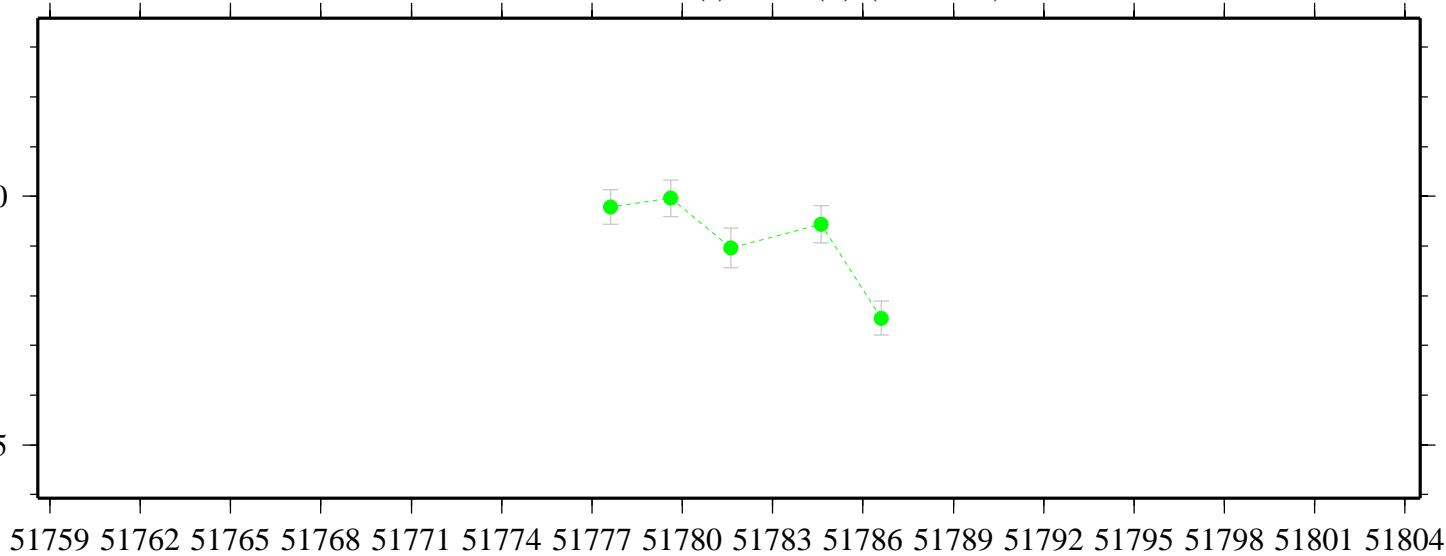
### USNO(f)-NPL(d) (TW-CV)

NANOSECONDS



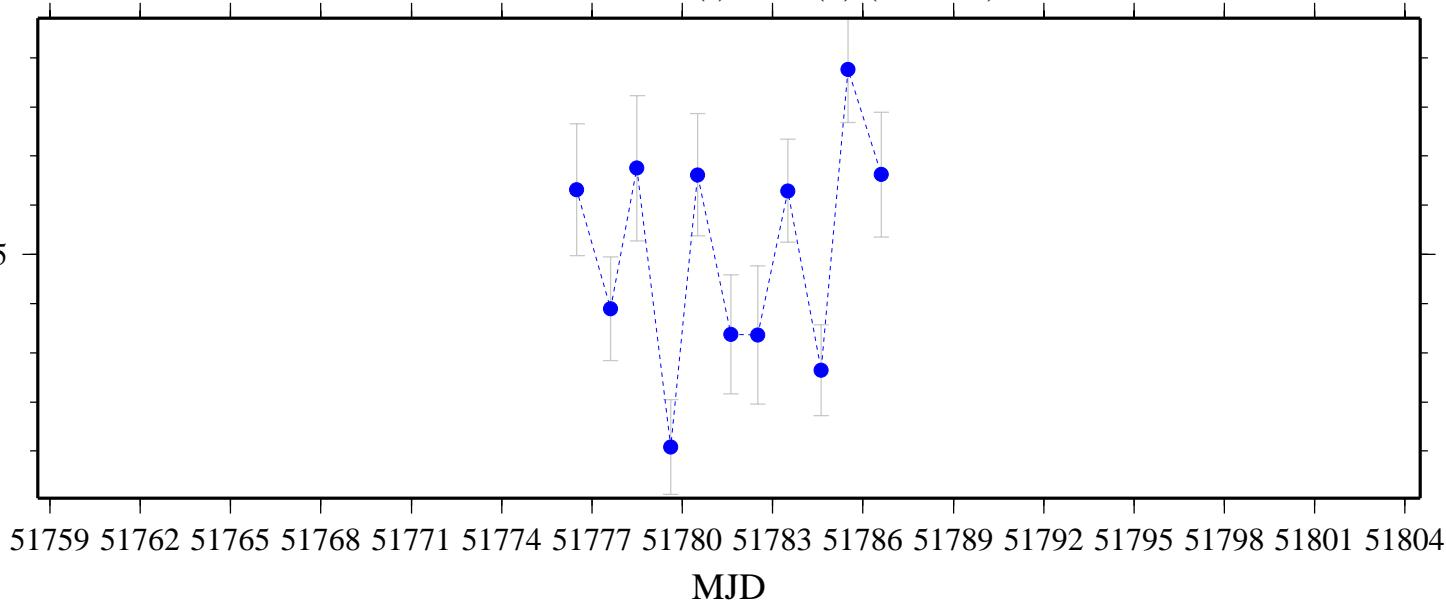
### USNO(f)-NPL(d) (TW-CP)

NANOSECONDS



### USNO(f)-NPL(d) (CV-CP)

NANOSECONDS

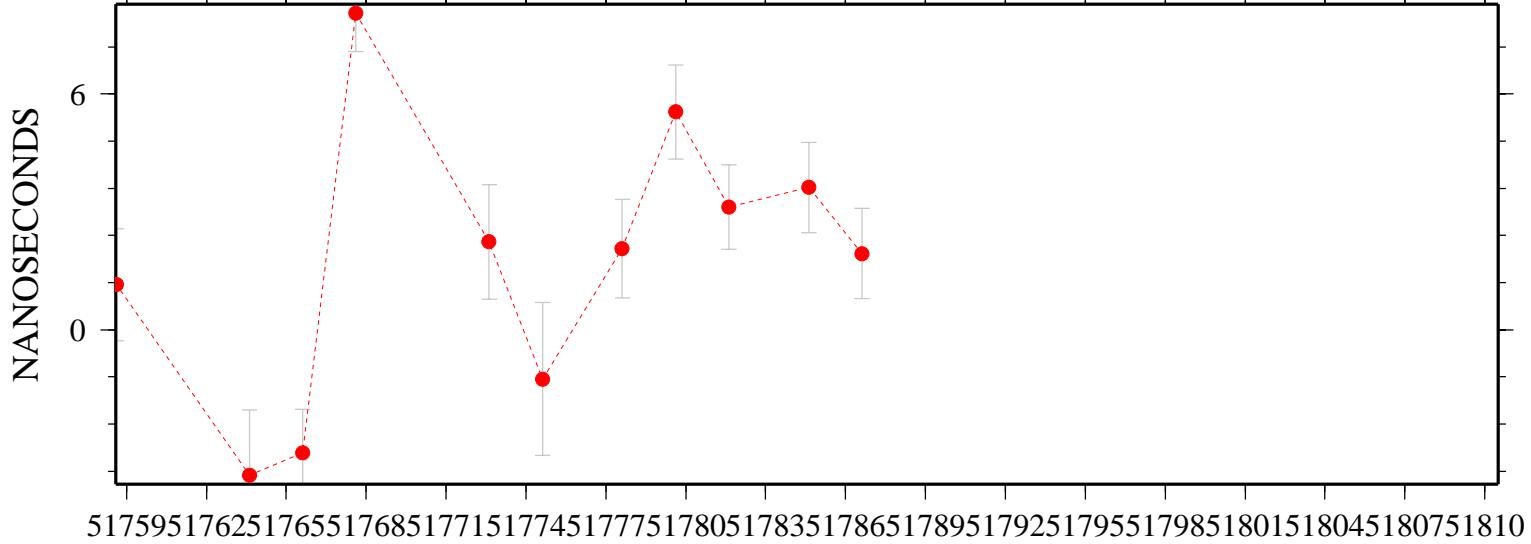


x and y-axes are same scale

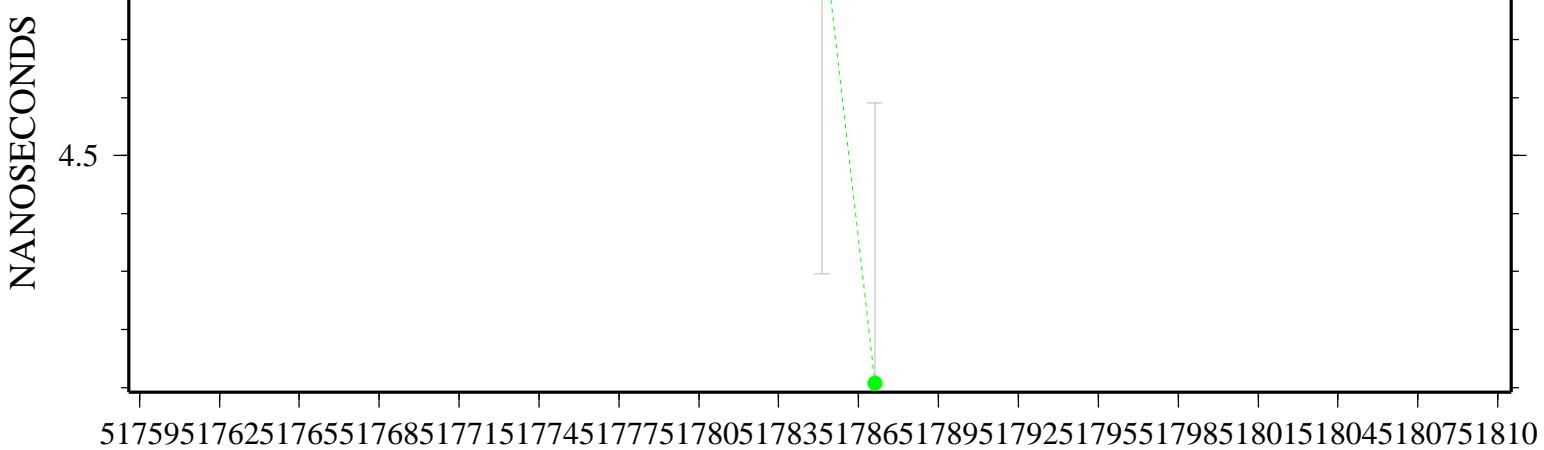
# USNO(f) - PTB(b)

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)			
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP	
51757.5000		-3.6							1.0		
51758.6160	-5.0	-6.2				1.1		0.6	1.3		
51759.5000		-9.1							0.9		
51760.5000		-6.5							1.3		
51761.5000		-6.6							1.2		
51762.5000		-0.8							1.1		
51763.6160	0.1	3.8				-3.7		0.6	1.5		
51764.5000		-0.8							0.9		
51765.6160	2.0	5.2				-3.1		0.6	0.9		
51766.5000		-3.6							0.9		
51767.6160	0.2	-7.8				8.1		0.5	0.8		
51768.5000		-0.4							1.3		
51769.5000		-2.3							1.3		
51770.5000		-0.6							1.4		
51771.5000		4.7							1.0		
51772.6160	10.2	8.0				2.2		0.6	1.3		
51773.5000		9.6							1.1		
51774.6160	8.9	10.1				-1.2		0.6	1.9		
51775.5000		6.4							1.3		
51776.5000		5.9							1.0		
51777.6160	6.7	4.6				2.1		0.6	1.1		
51778.5000		5.0							1.0		
51779.6160	6.1	0.5				5.6		0.5	1.1		
51780.5000		5.2							1.2		
51781.6160	4.4	1.3				3.1		0.6	0.9		
51782.5000		0.8	0.000	- 501989.520cp				0.8	1.1	0.017	
51783.5000		4.2	-0.387					4.6	1.0	0.019	
51784.6160	4.6	1.0	-0.301			3.6	4.9	1.3	0.6	1.0	0.017
51785.5000		6.4	0.720					5.7		0.9	0.015
51786.6160	6.3	4.3	2.162			1.9	4.1	2.2	0.5	1.0	0.009
<b>USNO(f):</b> TW: USNO_TW_USNO CV: USNO_CV_TTR1-2 CP: USNO_CP_NIM1					<b>PTB(b):</b> TW: PTB_TW_PTB CV: PTB_CV_PTB CP: PTB_CP_PTBB						

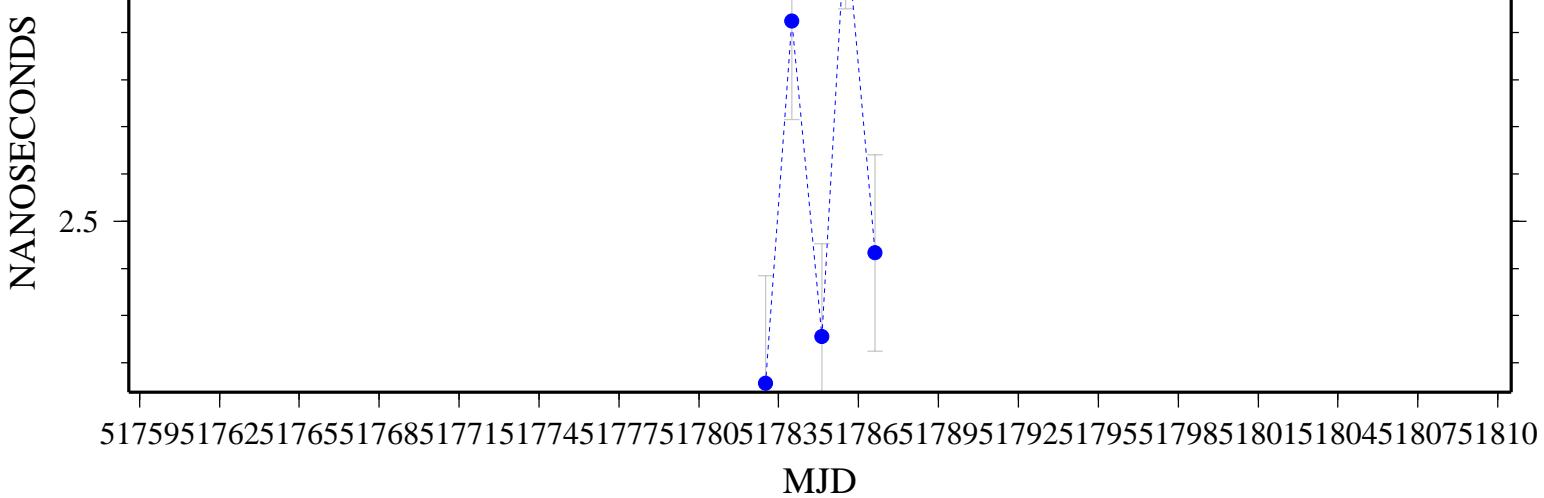
USNO(f)-PTB(b) (TW-CV)



USNO(f)-PTB(b) (TW-CP)



USNO(f)-PTB(b) (CV-CP)

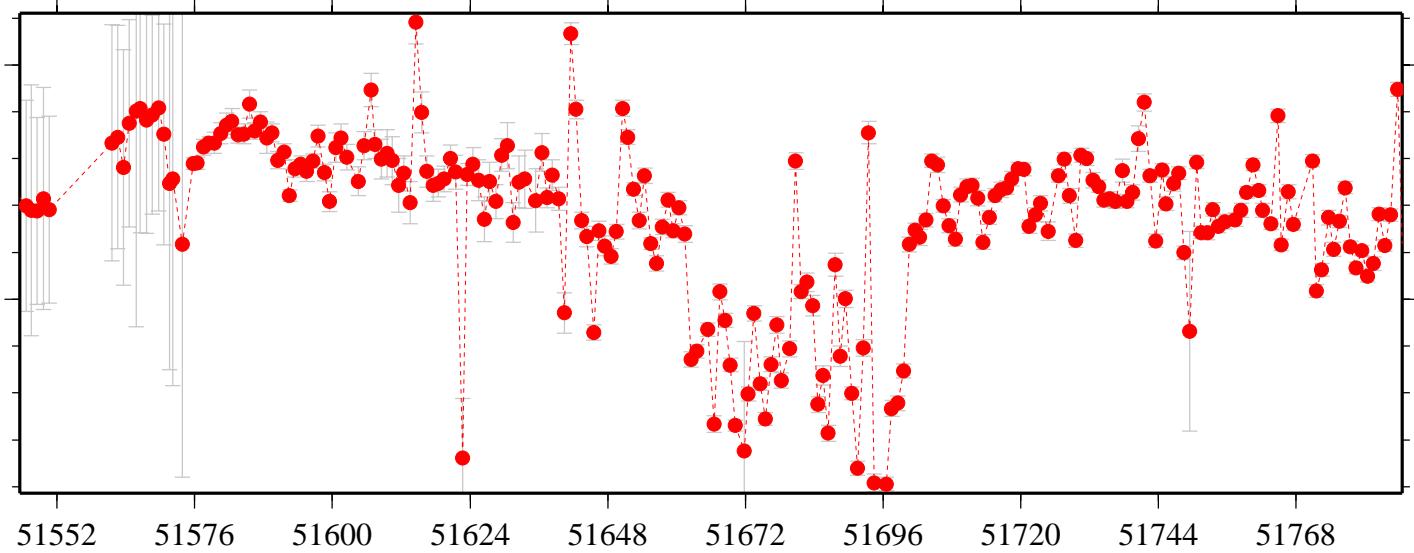


# USNO(g) - AMC

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)		
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP
51757.4306	0.0	-56.1	-14.848		56.1	14.8	-41.2	0.0	0.3	0.006
51758.4309	0.0	-56.5	-14.837		56.5	14.8	-41.6	0.0	0.3	0.005
51759.4309	0.0	-57.3	-15.037		57.3	15.0	-42.3	0.0	0.3	0.003
51760.5143	0.0	-58.5	-15.150		58.5	15.2	-43.4	0.0	0.3	0.004
51761.5139	0.0	-57.4	-15.069		57.4	15.1	-42.3	0.0	0.3	0.004
51762.2011	0.0	-56.5	-14.975		56.5	15.0	-41.5	0.0	0.3	0.004
51763.5760	0.0	-55.9	-15.188		55.9	15.2	-40.7	0.0	0.2	0.003
51764.8056	0.0	-60.7	-15.102		60.7	15.1	-45.6	0.0	0.3	0.004
51765.4094	0.0	-54.9	-15.182		54.9	15.2	-39.8	0.0	0.3	0.004
51766.6806	0.0	-57.3	-15.213		57.3	15.2	-42.1	0.0	0.3	0.004
51767.5788	0.0	-55.8	-14.929		55.8	14.9	-40.9	0.0	0.3	0.004
51768.0559	0.0	-53.8	-14.741		53.8	14.7	-39.1	Inf	0.3	0.005
51769.5000		-57.6							0.3	
51770.9101	0.0	-58.7			58.7			0.0	0.3	
51771.5566	0.0	-52.9			52.9			0.0	0.3	
51772.4934	0.0	-53.8	-14.972	+ 733.396CP	53.8	15.0	-38.8	0.0	0.3	0.004
51773.6184	0.0	-56.2	-14.876		56.2	14.9	-41.3	0.0	0.3	0.004
51774.5552	0.0	-54.7	-14.936		54.7	14.9	-39.8	0.0	0.3	0.005
51775.5980	0.0	-56.0	-14.958		56.0	15.0	-41.0	0.0	0.3	0.004
51776.5559	0.0	-57.5	-15.081		57.5	15.1	-42.4	0.0	0.3	0.003
51777.5139	0.0	-54.9	-15.326		54.9	15.3	-39.5	0.0	0.3	0.005
51778.4927	0.0	-53.9	-15.332		53.9	15.3	-38.6	0.0	0.3	0.007
51779.4927	0.0	-54.7	-15.372	- 1204.816CP	54.7	15.4	-39.3	0.0	0.2	0.004
51780.4518	0.0	-53.5	-15.390		53.5	15.4	-38.1	0.0	0.3	0.004
51781.5344	0.0	-54.1	-15.359		54.1	15.4	-38.7	0.0	0.3	0.005
51782.5139	0.0	-56.3	-15.218		56.3	15.2	-41.1	0.0	0.3	0.005
51783.5143	0.0	-54.9	-15.160		54.9	15.2	-39.7	0.0	0.3	0.004
51784.4938	0.0	-56.3	-14.889		56.3	14.9	-41.4	0.0	0.3	0.004
51785.7455	0.0	-61.9	-14.510		61.9	14.5	-47.4	0.0	0.3	0.006
51786.5351	0.0	-54.7	-14.205		54.7	14.2	-40.5	0.0	0.2	0.005
USNO(g):					AMC:					
TW: USNO_TW_USNO					TW: AMC_TW_AMC					
CV: USNO_CV_AOA1					CV: AMC_CV_AOA2					
CP: USNO_CP_NIM2					CP: <a href="#">AMC_CP_AMC2</a>					

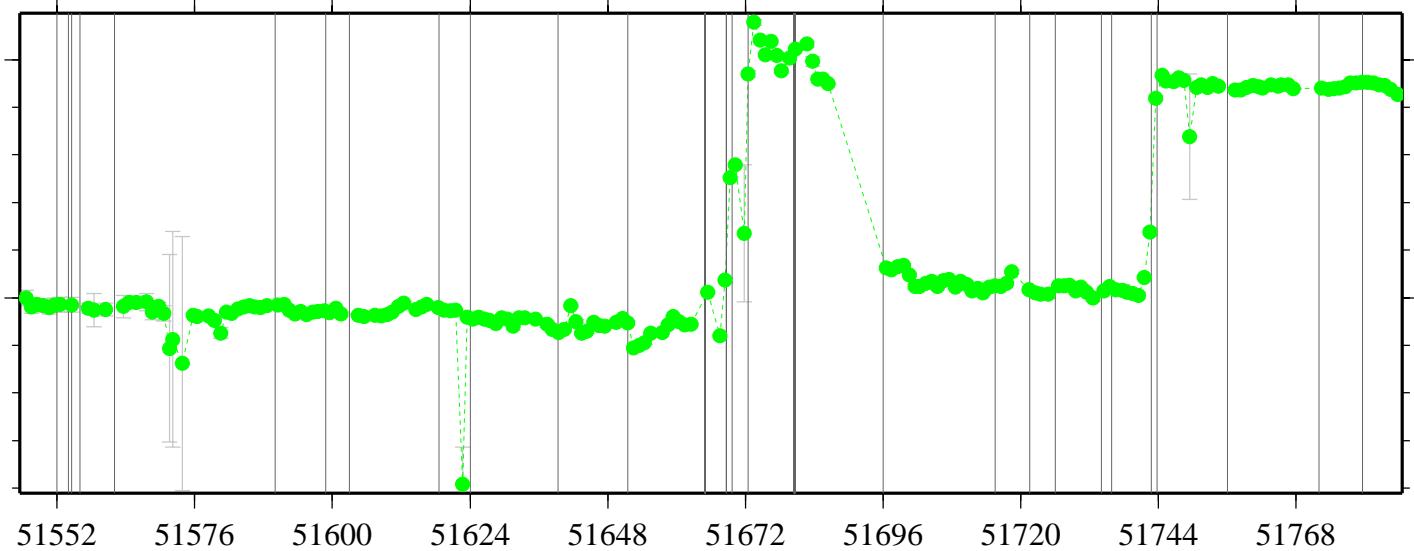
USNO(g)-AMC (TW-CV)

NANOSECONDS



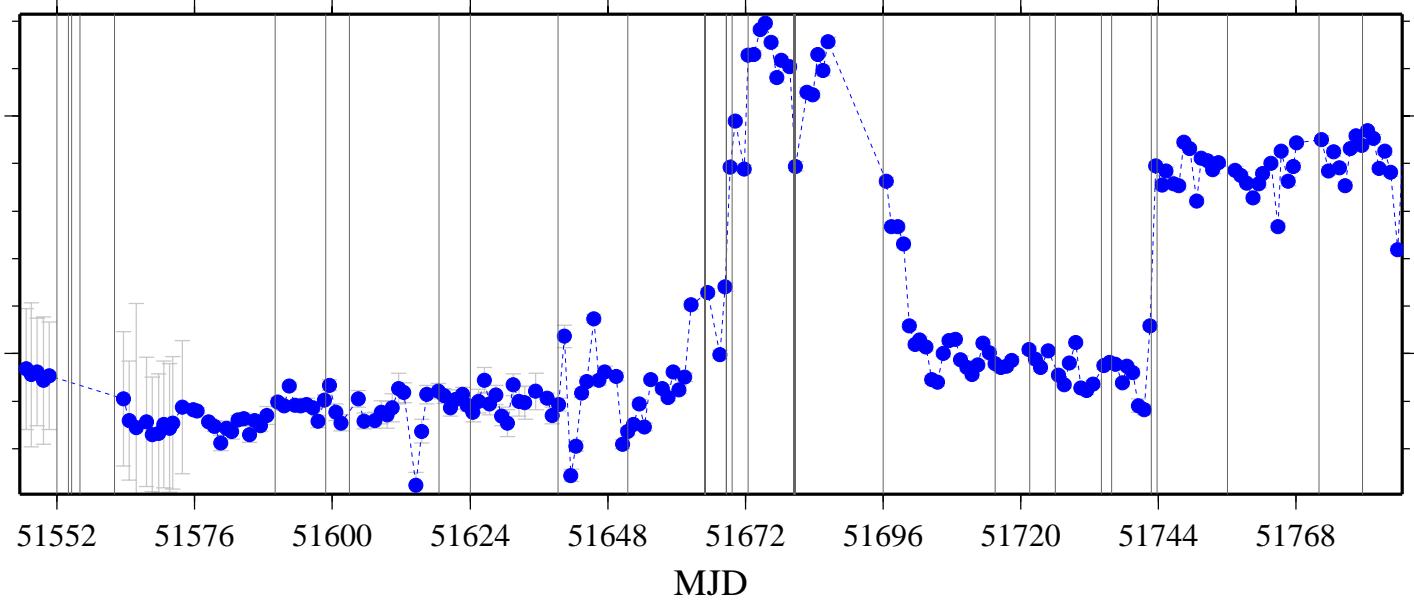
USNO(g)-AMC (TW-CP)

NANOSECONDS



USNO(g)-AMC (CV-CP)

NANOSECONDS

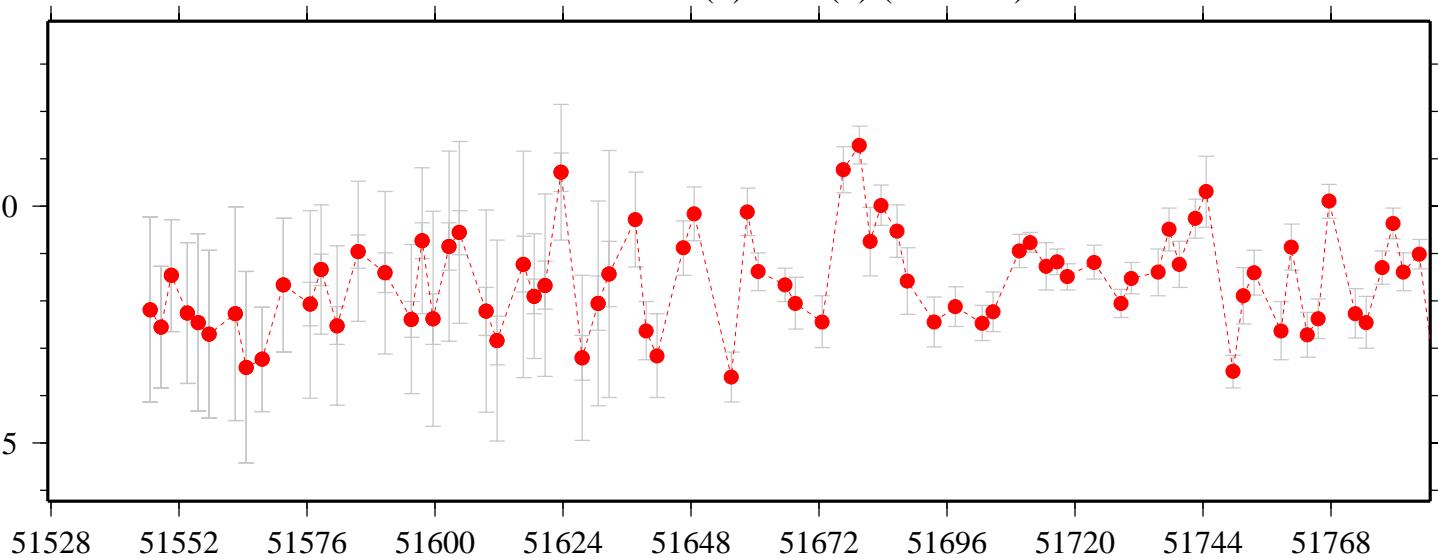


# USNO(h) - NPL(b)

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)		
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP
51757.5000		12.9	-111.112	+ 0.252 <sub>CP</sub>				124.0		1.5
51758.6097	3.1	12.3	-110.958		-9.2	114.1	123.3	0.8	2.0	0.009
51759.5000		7.9	-110.969					118.9		1.0
51760.6097	3.5	6.5	-110.906		-3.0	114.4	117.4	0.4	1.7	0.007
51761.5000		7.8	-110.672					118.4		1.6
51762.5000		10.4	-110.705					121.1		1.3
51763.6097	5.1	14.5	-110.620		-9.5	115.7	125.2	0.4	1.6	0.005
51764.5000		10.7	-110.459					121.2		1.5
51765.6097	5.1	13.4	-110.645		-8.3	115.8	124.1	0.4	1.4	0.005
51766.5000		6.6	-110.822					117.4		1.0
51767.6097	4.0	3.6	-110.821		0.4	114.8	114.5	0.4	1.2	0.006
51768.5000		7.4	-110.873					118.3		1.5
51769.5000		3.4								1.5
51770.5000		4.7								1.6
51771.5000		9.7								1.6
51772.6097	2.1	10.0			-7.9			0.4	1.8	
51773.5000		9.7								1.4
51774.6097	1.2	9.8			-8.6			0.3	1.9	
51775.5000		9.7								1.7
51776.5000		6.9								1.5
51777.6097	-0.7	3.8			-4.5			0.4	1.2	
51778.5000		6.7								1.6
51779.6097	-0.9	0.3			-1.2			0.4	1.1	
51780.5000		6.5								1.4
51781.6097	-1.8	3.0			-4.8			0.4	1.3	
51782.5000		3.3								1.5
51783.5000		6.4								1.2
51784.6097	-1.3	2.2			-3.5			0.4	1.0	
51785.5000		8.9								1.2
51786.6097	-3.4	6.6			-10.0			0.4	1.4	
<b>USNO(h):</b>					<b>NPL(b):</b>					
TW: USNO_TW_USNO					TW: NPL_TW_NPL					
CV: USNO_CV_TTR1-2					CV: NPL_CV_NPL					
CP: USNO_CP_NIM2					CP: NPL_CP_NPLB					

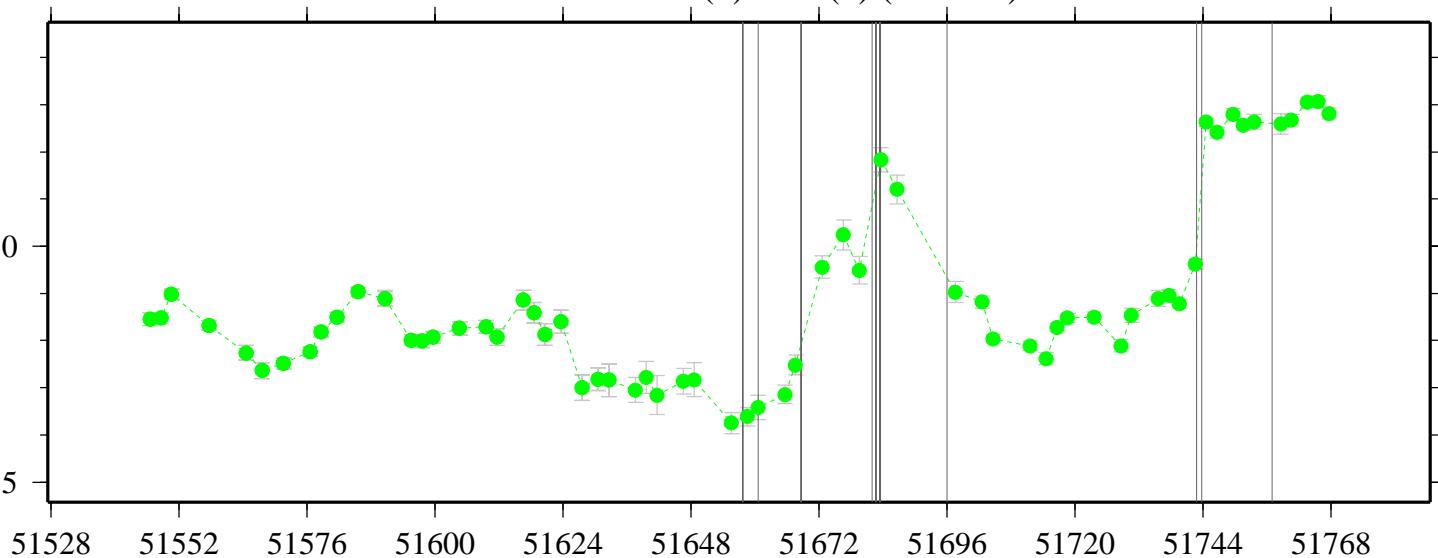
### USNO(h)-NPL(b) (TW-CV)

NANOSECONDS



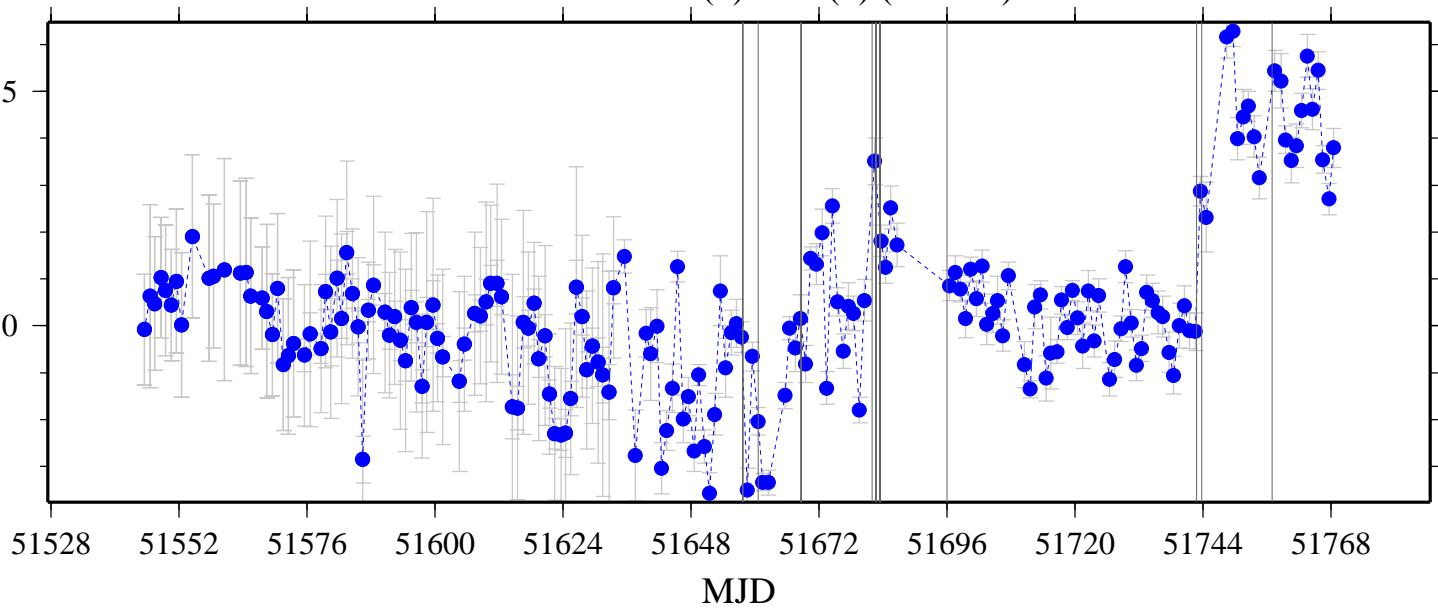
### USNO(h)-NPL(b) (TW-CP)

NANOSECONDS



### USNO(h)-NPL(b) (CV-CP)

NANOSECONDS



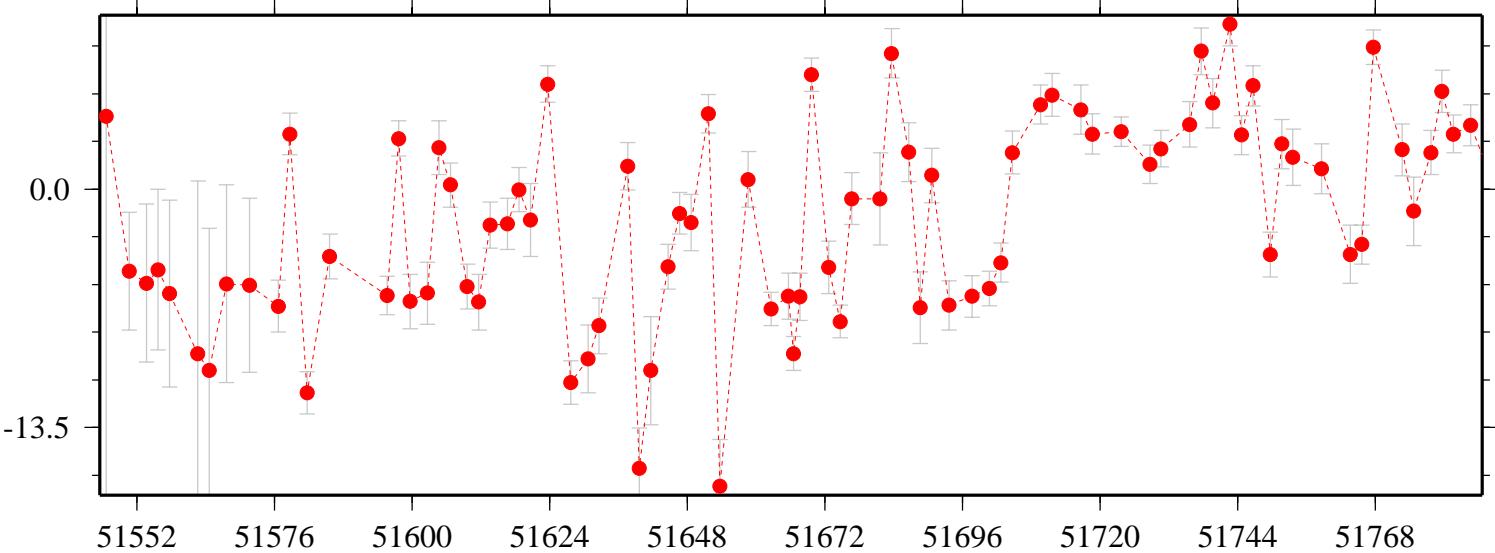
x and y-axes are same scale

# USNO(h) - PTB(a)

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)			
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP	
51757.5000		-3.6	-13.825					10.2	1.0	0.020	
51758.6160	-5.0	-6.2	-11.926		1.1	6.9	5.8	0.6	1.3	0.028	
51759.5000		-9.1	-12.343					3.2	0.9	0.016	
51760.5000		-6.5	-11.146					4.7	1.3	0.035	
51761.5000		-6.6	-10.613					4.1	1.2	0.015	
51762.5000		-0.8	-9.346					8.6	1.1	0.014	
51763.6160	0.1	3.8	-8.335		-3.7	8.5	12.2	0.6	1.5	0.022	
51764.5000		-0.8	-7.848					7.0	0.9	0.026	
51765.6160	2.0	5.2	-9.635		-3.1	11.7	14.8	0.6	0.9	0.020	
51766.5000		-3.6	-9.237					5.6	0.9	0.016	
51767.6160	0.2	-7.8	-8.154		8.1	8.4	0.3	0.5	0.8	0.019	
51768.5000		-0.4	-5.793					5.4	1.3	0.013	
51769.5000		-2.3								1.3	
51770.5000		-0.6								1.4	
51771.5000		4.7								1.0	
51772.6160	10.2	8.0	-2.016	- 1.460CP	2.2	12.2	10.0	0.6	1.3	0.023	
51773.5000		9.6	-2.398					12.0		1.1	0.029
51774.6160	8.9	10.1			-1.2			0.6	1.9		
51775.5000		6.4	-1.509	+ 2.114CP				7.9		1.3	0.026
51776.5000		5.9	-1.698					7.6		1.0	0.012
51777.6160	6.7	4.6			2.1			0.6	1.1		
51778.5000		5.0	-1.186	+ 2.414CP				6.2		1.0	0.020
51779.6160	6.1	0.5	-0.715		5.6	6.8	1.2	0.5	1.1	0.027	
51780.5000		5.2	-2.684					7.8		1.2	0.014
51781.6160	4.4	1.3	-1.573		3.1	6.0	2.8	0.6	0.9	0.017	
51782.5000		0.8	-1.163					2.0		1.1	0.017
51783.5000		4.2	-1.303					5.5		1.0	0.017
51784.6160	4.6	1.0	-0.808		3.6	5.4	1.8	0.6	1.0	0.015	
51785.5000		6.4	0.405					6.0		0.9	0.017
51786.6160	6.3	4.3	2.069		1.9	4.2	2.3	0.5	1.0	0.011	
<b>USNO(h):</b> TW: USNO_TW_USNO CV: USNO_CV_TTR1-2 CP: USNO_CP_NIM2					<b>PTB(a):</b> TW: PTB_TW_PTB CV: PTB_CV_PTB CP: PTB_CP_PTBA						

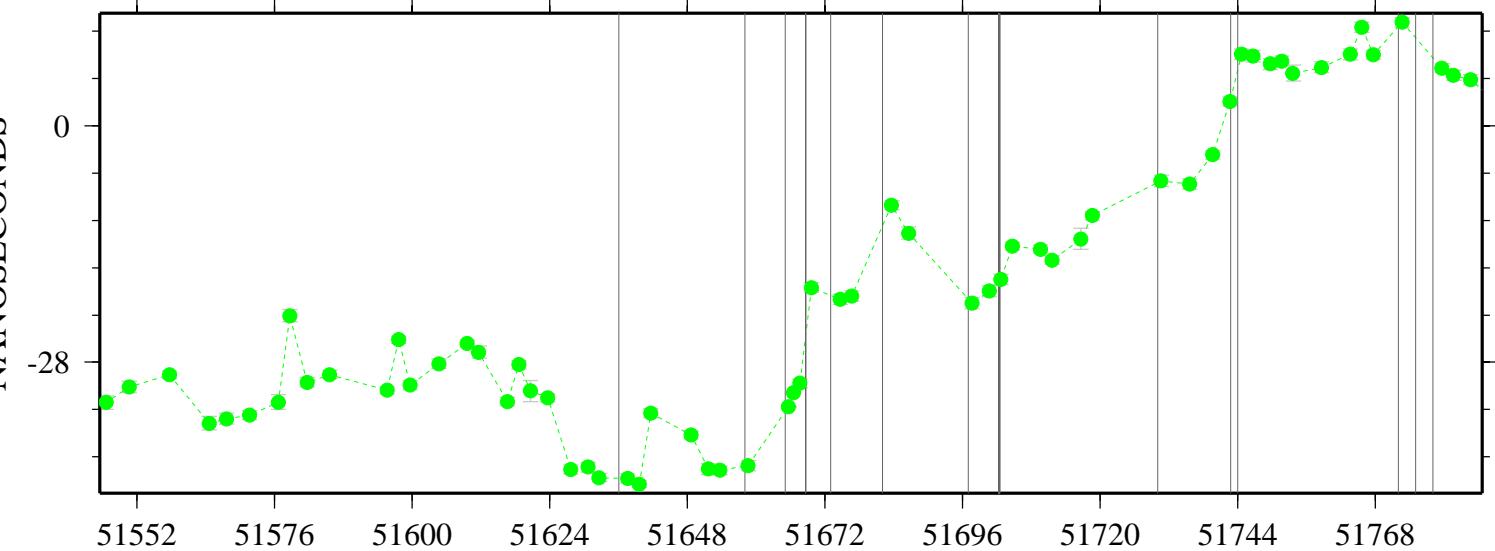
USNO(h)-PTB(a) (TW-CV)

NANOSECONDS



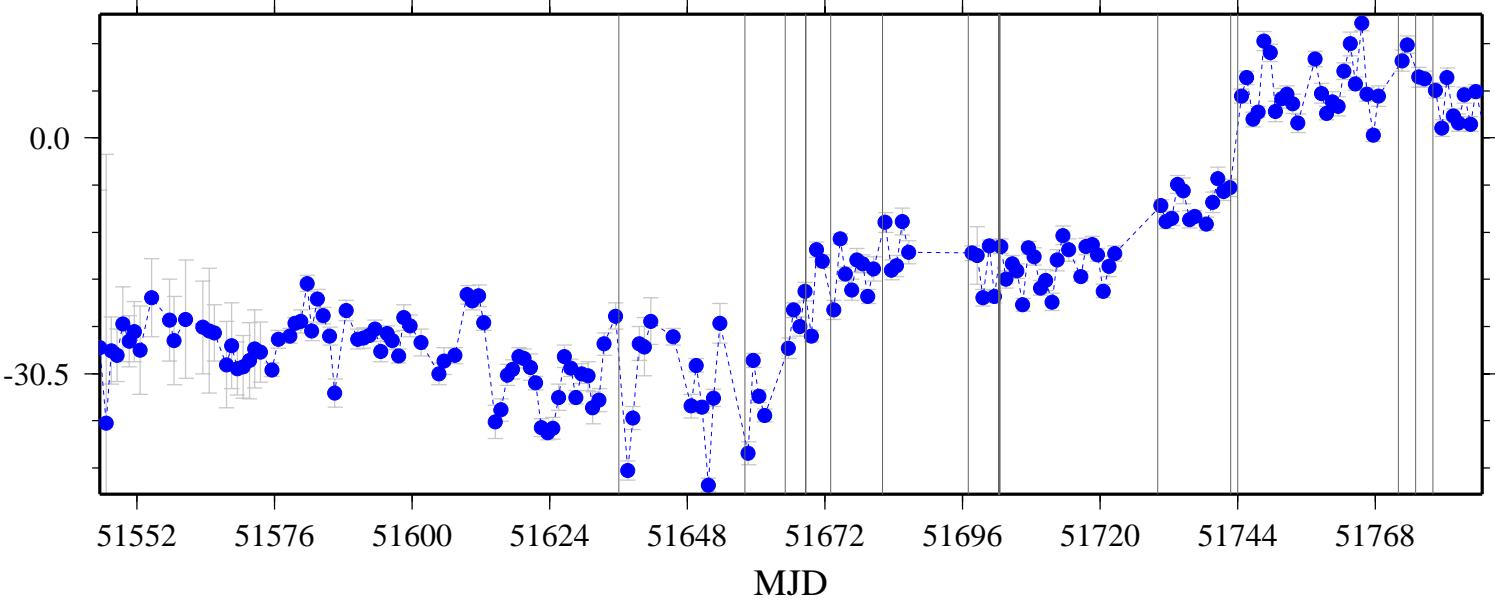
USNO(h)-PTB(a) (TW-CP)

NANOSECONDS



USNO(h)-PTB(a) (CV-CP)

NANOSECONDS

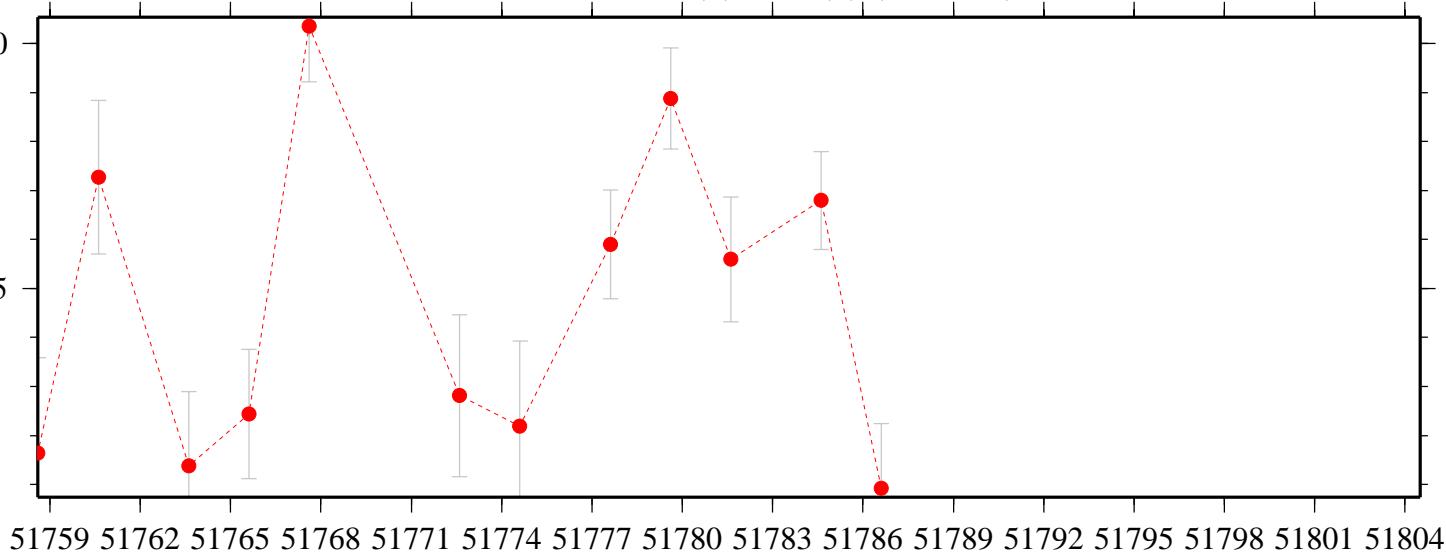


# USNO(h) - NPL(d)

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)		
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP
51757.5000		12.9							1.5	
51758.6097	3.1	12.3			-9.2			0.8	2.0	
51759.5000		7.9							1.0	
51760.6097	3.5	6.5			-3.0			0.4	1.7	
51761.5000		7.8							1.6	
51762.5000		10.4							1.3	
51763.6097	5.1	14.5			-9.5			0.4	1.6	
51764.5000		10.7							1.5	
51765.6097	5.1	13.4			-8.3			0.4	1.4	
51766.5000		6.6							1.0	
51767.6097	4.0	3.6			0.4			0.4	1.2	
51768.5000		7.4							1.5	
51769.5000		3.4							1.5	
51770.5000		4.7							1.6	
51771.5000		9.7							1.6	
51772.6097	2.1	10.0			-7.9			0.4	1.8	
51773.5000		9.7							1.4	
51774.6097	1.2	9.8			-8.6			0.3	1.9	
51775.5000		9.7							1.7	
51776.5000		6.9	0.000	- 383207.389cp			6.9		1.5	0.005
51777.6097	-0.7	3.8	-0.490		-4.5	-0.2	4.3	0.4	1.2	0.007
51778.5000		6.7	-0.801				7.5		1.6	0.005
51779.6097	-0.9	0.3	-0.943		-1.2	0.0	1.3	0.4	1.1	0.007
51780.5000		6.5	-0.975				7.4		1.4	0.006
51781.6097	-1.8	3.0	-0.850		-4.8	-1.0	3.9	0.4	1.3	0.005
51782.5000		3.3	-0.568				3.8		1.5	0.004
51783.5000		6.4	-0.720				7.1		1.2	0.004
51784.6097	-1.3	2.2	-0.849		-3.5	-0.5	3.1	0.4	1.0	0.004
51785.5000		8.9	-0.915				9.8		1.2	0.007
51786.6097	-3.4	6.6	-0.894		-10.0	-2.5	7.5	0.4	1.4	0.008
<b>USNO(h):</b> TW: USNO_TW_USNO CV: USNO_CV_TTR1-2 CP: USNO_CP_NIM2					<b>NPL(d):</b> TW: NPL_TW_NPL CV: NPL_CV_NPL CP: NPL_CP_NPLD					

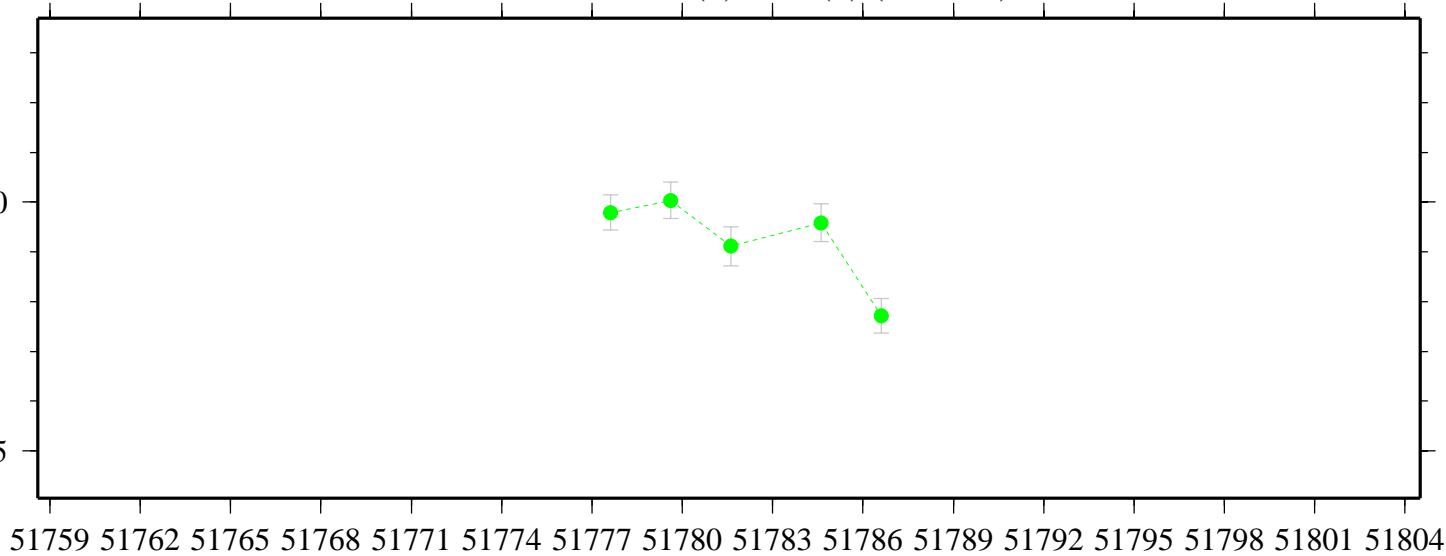
### USNO(h)-NPL(d) (TW-CV)

NANOSECONDS



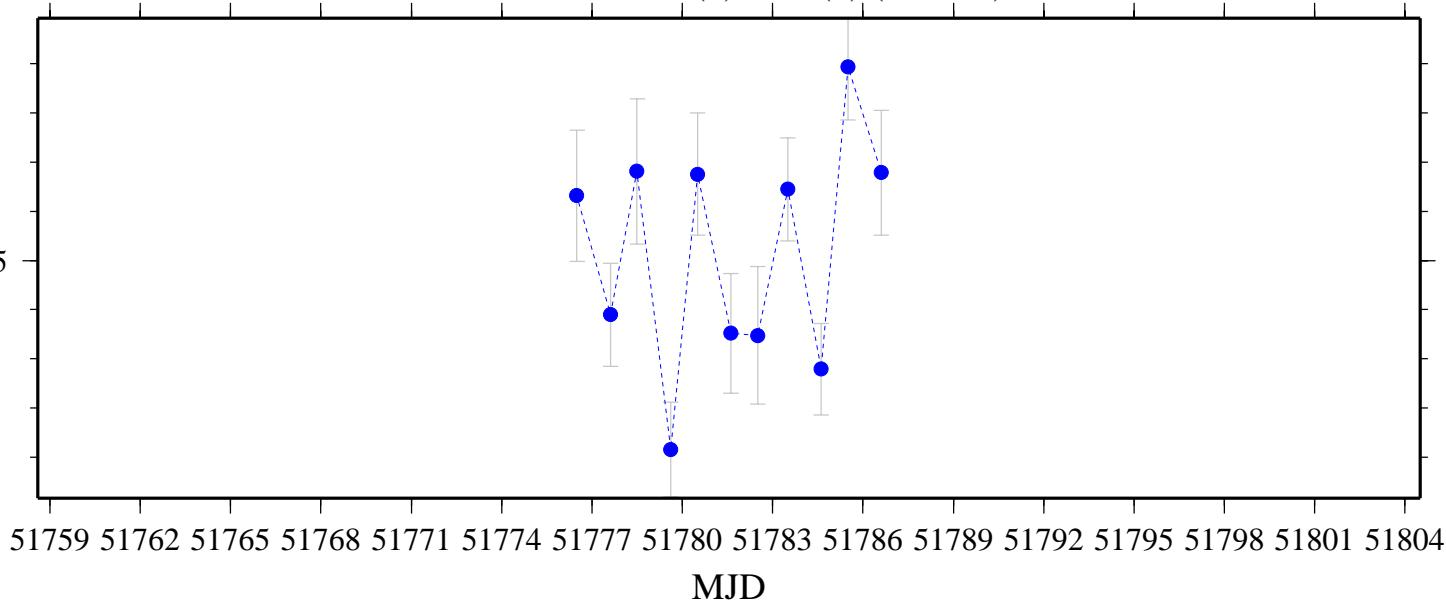
### USNO(h)-NPL(d) (TW-CP)

NANOSECONDS



### USNO(h)-NPL(d) (CV-CP)

NANOSECONDS



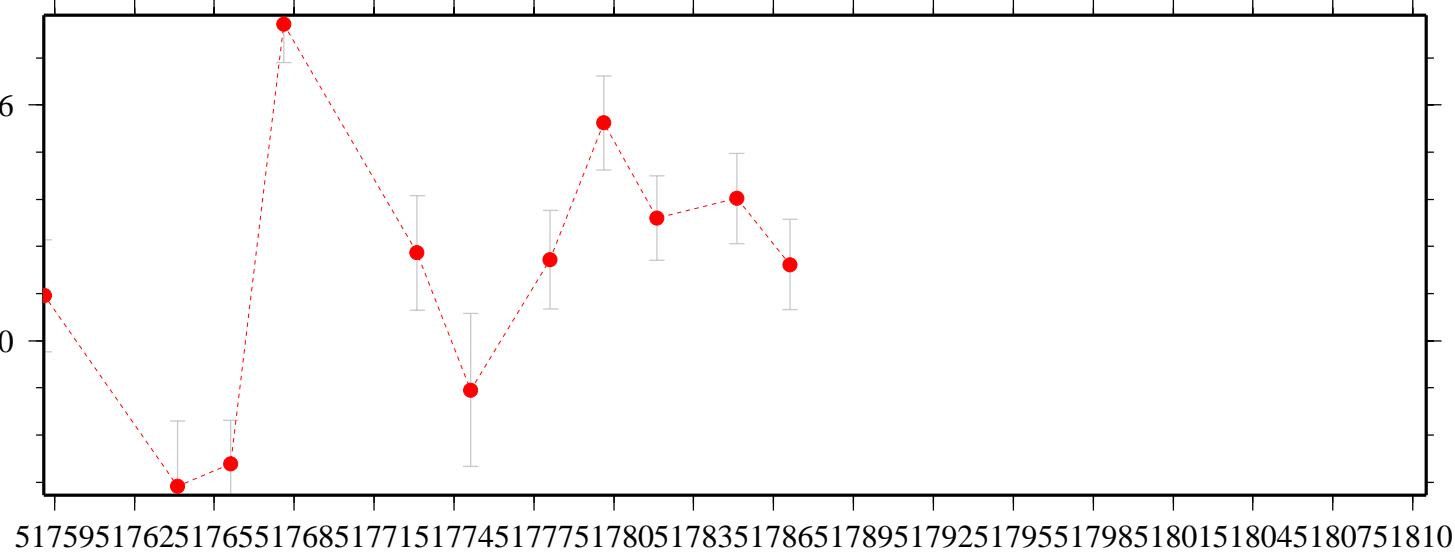
x and y-axes are same scale

# USNO(h) - PTB(b)

	TIME TRANS. 1-DAY AVE. (ns)			ADJUSTMENTS (ns)	TIME TRANS. DIFFERENCES (ns)			RMS SCATTER OF DAILY LINEAR FIT (ns)			
MJD	TW	CV	CP		TW-CV	TW-CP	CV-CP	TW	CV	CP	
51757.5000		-3.6							1.0		
51758.6160	-5.0	-6.2				1.1		0.6	1.3		
51759.5000		-9.1							0.9		
51760.5000		-6.5							1.3		
51761.5000		-6.6							1.2		
51762.5000		-0.8							1.1		
51763.6160	0.1	3.8				-3.7		0.6	1.5		
51764.5000		-0.8							0.9		
51765.6160	2.0	5.2				-3.1		0.6	0.9		
51766.5000		-3.6							0.9		
51767.6160	0.2	-7.8				8.1		0.5	0.8		
51768.5000		-0.4							1.3		
51769.5000		-2.3							1.3		
51770.5000		-0.6							1.4		
51771.5000		4.7							1.0		
51772.6160	10.2	8.0				2.2		0.6	1.3		
51773.5000		9.6							1.1		
51774.6160	8.9	10.1				-1.2		0.6	1.9		
51775.5000		6.4							1.3		
51776.5000		5.9							1.0		
51777.6160	6.7	4.6				2.1		0.6	1.1		
51778.5000		5.0							1.0		
51779.6160	6.1	0.5				5.6		0.5	1.1		
51780.5000		5.2							1.2		
51781.6160	4.4	1.3				3.1		0.6	0.9		
51782.5000		0.8	0.000	- 374594.681cp				0.8	1.1	0.016	
51783.5000		4.2	-0.431					4.7	1.0	0.018	
51784.6160	4.6	1.0	-0.341			3.6	4.9	1.3	0.6	1.0	0.016
51785.5000		6.4	0.648					5.7		0.9	0.016
51786.6160	6.3	4.3	2.107			1.9	4.2	2.2	0.5	1.0	0.009
USNO(h):					PTB(b):						
TW: USNO_TW_USNO					TW: PTB_TW_PTB						
CV: USNO.CV_TTR1-2					CV: PTB.CV_PTB						
CP: USNO.CP_NIM2					CP: PTB.CP_PTBB						

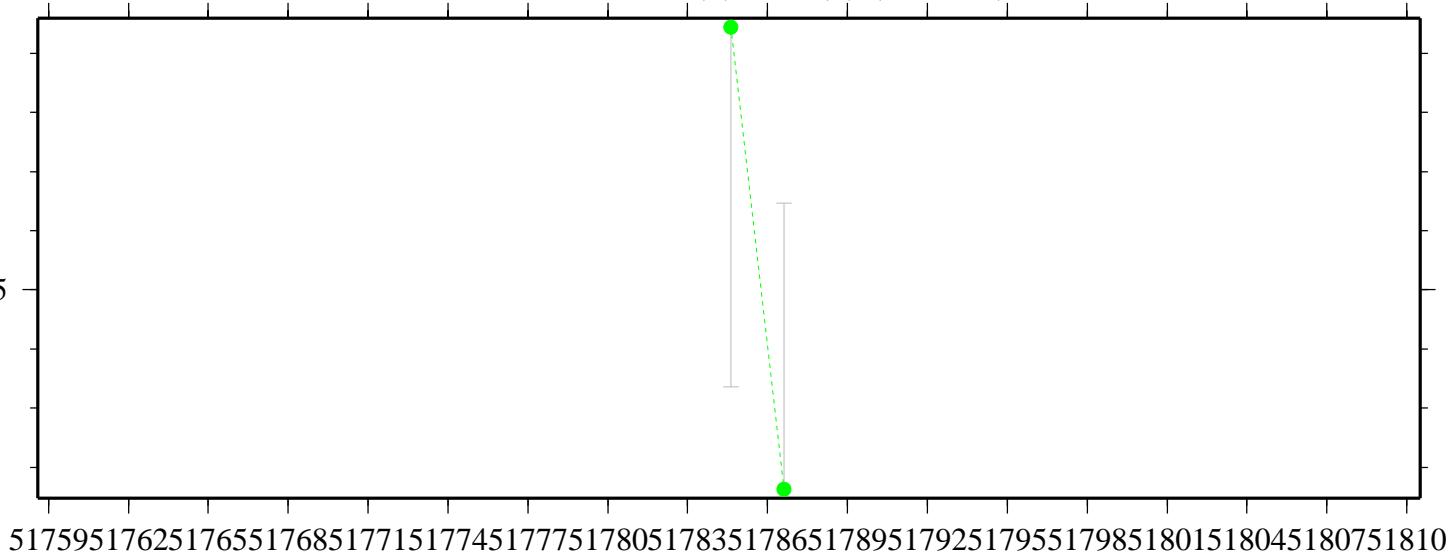
### USNO(h)-PTB(b) (TW-CV)

NANOSECONDS



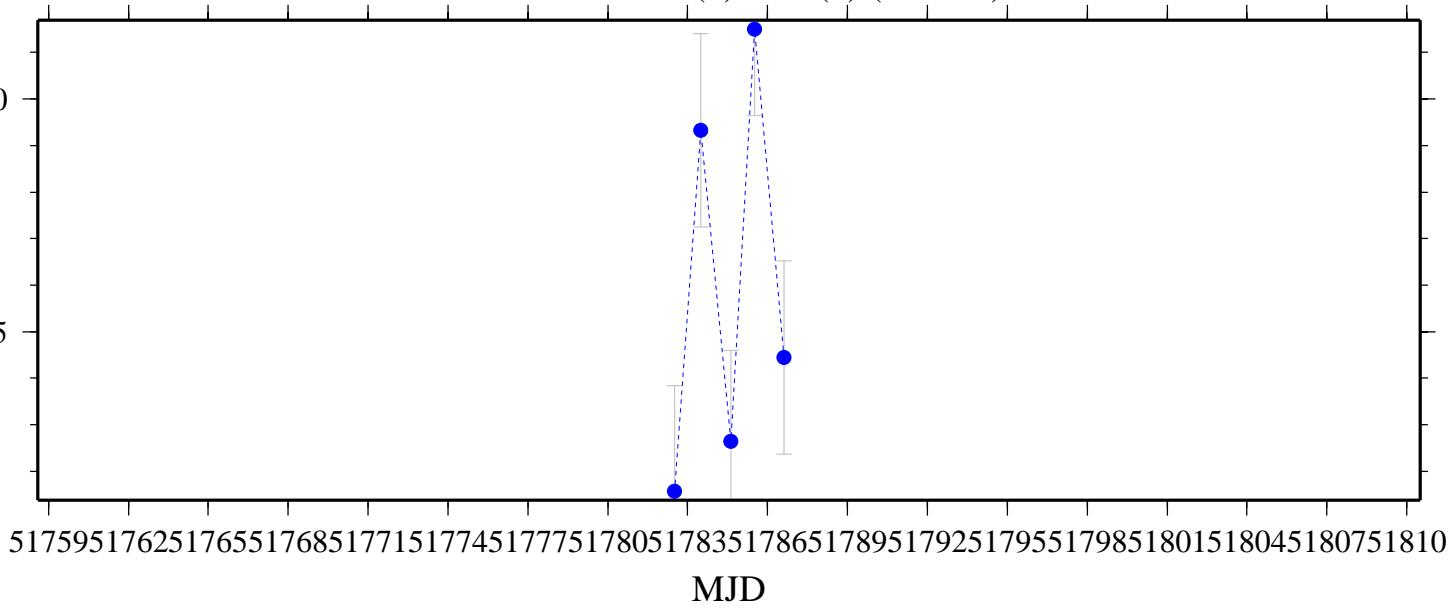
### USNO(h)-PTB(b) (TW-CP)

NANOSECONDS



### USNO(h)-PTB(b) (CV-CP)

NANOSECONDS



<b>AMC</b>	<b>Receiver System Hardware Information:</b>
<b>TW</b>	<p><b>modem model:</b> AOATWT-1000  <b>antenna:</b> 1.8m-VSAT  <b>reference standard name:</b> UTC(USNOAMC(MC1))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p>
<b>CV</b>	<p><b>receiver name (local):</b> AOA2 SN113  <b>receiver model:</b> AOA-TTR4P  <b>antenna:</b> XXX  <b>reference standard name:</b> UTC(USNOAMC(MC1))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>AOA2</u></b></p> <p><b><u>NOTES:</u></b></p> <p>Receiver not calibrated.</p>
<b>CP</b>	<p><b>receiver name (local):</b> AMC2  <b>receiver model:</b> AOA SNR-12 ACT  <b>antenna:</b> AOAD-M_T  <b>reference standard name:</b> UTC(USNOAMC(MC1))  <b>reference standard type:</b> steered H-MASER</p> <p><b><u>LOGS:</u></b></p> <p>51769 08-Jul-00 <a href="#">receiver stopped tracking at ~00:07</a>  51779 09-Jul-00 <a href="#">receiver restarted at ~01:12</a></p> <p><b><u>NOTES:</u></b></p> <p>This is an IGS station (AMC2).</p>

<b>NPL(b)</b>	<b>Receiver System Hardware Information:</b>
<b>TW</b>	<p><b>modem model:</b> SATRE  <b>antenna:</b> 1.8m-VSAT  <b>reference standard name:</b> UTC(NPL)  <b>reference standard type:</b> H-MASER</p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p>
<b>CV</b>	<p><b>receiver name (local):</b> xxx SN276  <b>receiver model:</b> AOA-TTR5A  <b>antenna:</b> xxx  <b>reference standard name:</b> UTC(NPL)  <b>reference standard type:</b> H-MASER</p> <p><b><u>LOGS:</u></b></p> <p><b><u>xxx</u></b></p> <p><b><u>NOTES:</u></b></p> <p>This receiver system has an arbitrary fixed offset from UTC(NPL) which has not been measured.</p>
<b>CP</b>	<p><b>receiver name (local):</b> NPLB  <b>receiver model:</b>  <b>antenna:</b>  <b>reference standard name:</b> UTC(NPL)  <b>reference standard type:</b></p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p>

<b>NPL(d)</b>	<b>Receiver System Hardware Information:</b>
<b>TW</b>	<p><b>modem model:</b> SATRE  <b>antenna:</b> 1.8m-VSAT  <b>reference standard name:</b> UTC(NPL)  <b>reference standard type:</b> H-MASER</p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p>
<b>CV</b>	<p><b>receiver name (local):</b> xxx SN276  <b>receiver model:</b> AOA-TTR5A  <b>antenna:</b> xxx  <b>reference standard name:</b> UTC(NPL)  <b>reference standard type:</b> H-MASER</p> <p><b><u>LOGS:</u></b></p> <p><b><u>xxx</u></b></p> <p><b><u>NOTES:</u></b></p> <p>This receiver system has an arbitrary fixed offset from UTC(NPL) which has not been measured.</p>
<b>CP</b>	<p><b>receiver name (local):</b> NPLD  <b>receiver model:</b>  <b>antenna:</b>  <b>reference standard name:</b> UTC(NPL)  <b>reference standard type:</b></p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p>

<b>PTB(a)</b>	<b>Receiver System Hardware Information:</b>
<b>TW</b>	<p><b>modem model:</b> SATRE  <b>antenna:</b> 1.8m-VSAT  <b>reference standard name:</b> UTC(PTB)  <b>reference standard type:</b> CESIUM(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p>
<b>CV</b>	<p><b>receiver name (local):</b> xxx xxx  <b>receiver model:</b> AOA-TTR5  <b>antenna:</b> xxx  <b>reference standard name:</b> UTC(PTB)  <b>reference standard type:</b> CESIUM(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>xxx</u></b></p> <p><b><u>NOTES:</u></b></p>
<b>CP</b>	<p><b>receiver name (local):</b> PTBA  <b>receiver model:</b>  <b>antenna:</b>  <b>reference standard name:</b> H2  <b>reference standard type:</b></p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p>

<b>PTB(b)</b>	<b>Receiver System Hardware Information:</b>
<b>TW</b>	<p><b>modem model:</b> SATRE  <b>antenna:</b> 1.8m-VSAT  <b>reference standard name:</b> UTC(PTB)  <b>reference standard type:</b> CESIUM(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p>
<b>CV</b>	<p><b>receiver name (local):</b> xxx xxx  <b>receiver model:</b> AOA-TTR5  <b>antenna:</b> xxx  <b>reference standard name:</b> UTC(PTB)  <b>reference standard type:</b> CESIUM(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>xxx</u></b></p> <p><b><u>NOTES:</u></b></p>
<b>CP</b>	<p><b>receiver name (local):</b> PTBB  <b>receiver model:</b>  <b>antenna:</b>  <b>reference standard name:</b> H2  <b>reference standard type:</b></p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p>

<b>USNO(a)</b>	<b>Receiver System Hardware Information:</b>
<b>TW</b>	<p><b>modem model:</b> EACS-TWSTT-2000(sn#103)  <b>antenna:</b> 4.6m-steerable-vertex  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p>
<b>CV</b>	<p><b>receiver name (local):</b> AOA1 SN12  <b>receiver model:</b> AOA-TTR4P  <b>antenna:</b> xxx  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>AOA1</u></b></p> <p><b><u>NOTES:</u></b></p> <p>Receiver not calibrated.</p>
<b>CP</b>	<p><b>receiver name (local):</b> USNO  <b>receiver model:</b> AOA SNR-12 ACT  <b>antenna:</b> AOAD-M_T  <b>reference standard name:</b> UTC(USNO(MC3))  <b>reference standard type:</b> steered H-MASER</p> <p><b><u>LOGS:</u></b></p> <p>51761 18-Jun-00 <a href="#">receiver stopped; restarted at 16:50 on 19 June</a></p> <p><b><u>NOTES:</u></b></p> <p>CP clock estimates are referenced to UTC(USNO(MC2)) using data from an optic fiber link.</p>

<b>USNO(b)</b>	<b>Receiver System Hardware Information:</b>
<b>TW</b>	<p><b>modem model:</b> Mitrex-2500(sn#85006)  <b>antenna:</b> 4.6m-steerable-vertex  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p>
<b>CV</b>	<p><b>receiver name (local):</b> TTR1 SN440  <b>receiver model:</b> AOA-TTR6  <b>antenna:</b> xxx  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>TTR1</u></b></p> <p><b><u>NOTES:</u></b></p> <p>This is the primary USNO SPS common view receiver.</p>
<b>CP</b>	<p><b>receiver name (local):</b> USNO  <b>receiver model:</b> AOA SNR-12 ACT  <b>antenna:</b> AOAD-M_T  <b>reference standard name:</b> UTC(USNO(MC3))  <b>reference standard type:</b> steered H-MASER</p> <p><b><u>LOGS:</u></b></p> <p>51761 18-Jun-00 <a href="#">receiver stopped; restarted at 16:50 on 19 June</a></p> <p><b><u>NOTES:</u></b></p> <p>CP clock estimates are referenced to UTC(USNO(MC2)) using data from an optic fiber link.</p>

<b>USNO(c)</b>	<b>Receiver System Hardware Information:</b>
<b>TW</b>	<p><b>modem model:</b> EACS-TWSTT-2000(sn#103)  <b>antenna:</b> 4.6m-steerable-vertex  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p>
<b>CV</b>	<p><b>receiver name (local):</b> AOA1 SNxxx  <b>receiver model:</b> AOA-TTR4P  <b>antenna:</b> xxx  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>AOA1</u></b></p> <p><b><u>NOTES:</u></b></p> <p>Receiver not calibrated.</p>
<b>CP</b>	<p><b>receiver name (local):</b> USNB  <b>receiver model:</b> modified Ashtech Z-12T GeTT terminal  <b>antenna:</b>  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> steered H-MASER</p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p> <p>This is a GeTT receiver.</p>

<b>USNO(d)</b>	<b>Receiver System Hardware Information:</b>
<b>TW</b>	<p><b>modem model:</b> Mitrex-2500(sn#85006)  <b>antenna:</b> 4.6m-steerable-vertex  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p>
<b>CV</b>	<p><b>receiver name (local):</b> TTR1 SN440  <b>receiver model:</b> AOA-TTR6  <b>antenna:</b> xxx  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>TTR1</u></b></p> <p><b><u>NOTES:</u></b></p> <p>This is the primary USNO SPS common view receiver.</p>
<b>CP</b>	<p><b>receiver name (local):</b> USNB  <b>receiver model:</b> modified Ashtech Z-12T GeTT terminal  <b>antenna:</b>  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> steered H-MASER</p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p> <p>This is a GeTT receiver.</p>

<b>USNO(e)</b>	<b>Receiver System Hardware Information:</b>
<b>TW</b>	<p><b>modem model:</b> EACS-TWSTT-2000(sn#103)  <b>antenna:</b> 4.6m-steerable-vertex  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p>
<b>CV</b>	<p><b>receiver name (local):</b> AOA1 SNxxx  <b>receiver model:</b> AOA-TTR4P  <b>antenna:</b> xxx  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>AOA1</u></b></p> <p><b><u>NOTES:</u></b></p> <p>Receiver not calibrated.</p>
<b>CP</b>	<p><b>receiver name (local):</b> NIM1  <b>receiver model:</b> Ashtech Z-12  <b>antenna:</b> Geodetic 3  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> steered H-MASER</p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p> <p>This receiver is owned by the National Imagery and Mapping Agency (NIMA)</p>

<b>USNO(f)</b>	<b>Receiver System Hardware Information:</b>
<b>TW</b>	<p><b>modem model:</b> Mitrex-2500(sn#85006)  <b>antenna:</b> 4.6m-steerable-vertex  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p>
<b>CV</b>	<p><b>receiver name (local):</b> TTR1 SN440  <b>receiver model:</b> AOA-TTR6  <b>antenna:</b> XXX  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>TTR1</u></b></p> <p><b><u>NOTES:</u></b></p> <p>This is the primary USNO SPS common view receiver.</p>
<b>CP</b>	<p><b>receiver name (local):</b> NIM1  <b>receiver model:</b> Ashtech Z-12  <b>antenna:</b> Geodetic 3  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> steered H-MASER</p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p> <p>This receiver is owned by the National Imagery and Mapping Agency (NIMA)</p>

<b>USNO(g)</b>	<b>Receiver System Hardware Information:</b>
<b>TW</b>	<p><b>modem model:</b> EACS-TWSTT-2000(sn#103)  <b>antenna:</b> 4.6m-steerable-vertex  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p>
<b>CV</b>	<p><b>receiver name (local):</b> AOA1 SNxxx  <b>receiver model:</b> AOA-TTR4P  <b>antenna:</b> xxx  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>AOA1</u></b></p> <p><b><u>NOTES:</u></b></p> <p>Receiver not calibrated.</p>
<b>CP</b>	<p><b>receiver name (local):</b> NIM2  <b>receiver model:</b> Ashtech Z-12  <b>antenna:</b> Geodetic 3  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> steered H-MASER</p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p> <p>This receiver is owned by the National Imagery and Mapping Agency (NIMA)</p>

<b>USNO(h)</b>	<b>Receiver System Hardware Information:</b>
<b>TW</b>	<p><b>modem model:</b> Mitrex-2500(sn#85006)  <b>antenna:</b> 4.6m-steerable-vertex  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p>
<b>CV</b>	<p><b>receiver name (local):</b> TTR1 SN440  <b>receiver model:</b> AOA-TTR6  <b>antenna:</b> xxx  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> H-MASER(steered)</p> <p><b><u>LOGS:</u></b></p> <p><b><u>TTR1</u></b></p> <p><b><u>NOTES:</u></b></p> <p>This is the primary USNO SPS common view receiver.</p>
<b>CP</b>	<p><b>receiver name (local):</b> NIM2  <b>receiver model:</b> Ashtech Z-12  <b>antenna:</b> Geodetic 3  <b>reference standard name:</b> UTC(USNO(MC2))  <b>reference standard type:</b> steered H-MASER</p> <p><b><u>LOGS:</u></b></p> <p><b><u>NOTES:</u></b></p> <p>This receiver is owned by the National Imagery and Mapping Agency (NIMA)</p>